



US008103586B2

(12) **United States Patent**  
**Doran et al.**

(10) **Patent No.:** **US 8,103,586 B2**  
(45) **Date of Patent:** **Jan. 24, 2012**

(54) **METHODS AND SYSTEMS FOR EXCHANGING AND/OR TRANSFERRING VARIOUS FORMS OF VALUE**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **12/647,594**

(22) Filed: **Dec. 28, 2009**

(65) **Prior Publication Data**  
US 2010/0100481 A1 Apr. 22, 2010

**Related U.S. Application Data**

(63) Continuation of application No. 10/504,436, filed as application No. PCT/US03/04603 on Feb. 14, 2003, now Pat. No. 7,653,599.

(60) Provisional application No. 60/357,555, filed on Feb. 15, 2002, provisional application No. 60/357,331, filed on Feb. 15, 2002, provisional application No. 60/419,735, filed on Oct. 18, 2002, provisional application No. 60/424,377, filed on Nov. 6, 2002.

(51) **Int. Cl.**  
**G06Q 40/00** (2006.01)

(52) **U.S. Cl.** ..... **705/41**

(58) **Field of Classification Search** ..... 705/14, 705/35, 39-41, 44, 64-68, 75; 235/375, 235/380-382.5; 902/8, 22, 24-26, 30-32; 725/6

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

446,303 A 2/1891 Thompson  
576,141 A 2/1897 Muenchinger  
1,010,993 A 12/1911 White  
1,234,707 A 7/1917 Whistler  
1,711,049 A 4/1929 Fonda et al.

(Continued)

FOREIGN PATENT DOCUMENTS

CA 1053598 5/1979

(Continued)

OTHER PUBLICATIONS

Exam Report, Canadian Application No. 2,476,502, Mail Date Oct. 25, 2010, 7 pages.

(Continued)

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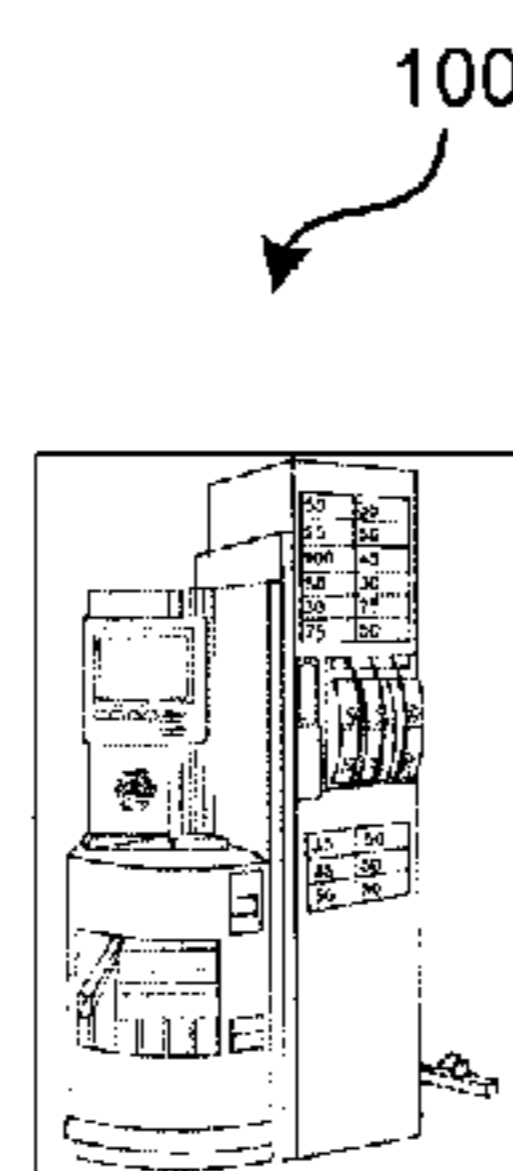
(57) **ABSTRACT**

Methods and systems for exchanging various forms of value, including coins, currency, credit, debit, and/or bank account funds, for prepaid cash cards, credit cards, phone cards, and the like. In one embodiment, a value exchange machine includes a coin input region, a coin sorting/counting apparatus, a card reader, and a communications facility configured to communicate with a remote computer network. In another embodiment, a value exchange system includes one or more of the value exchange machines connected to one or more remote computers via a communications link. A user wishing to purchase, for example, a prepaid cash card can visit one of the value exchange machines, select the desired transaction, and pay for the card with coins, currency, a credit card, a debit card, and/or bank account funds. After confirming payment, the value exchange machine dispenses the card to the user.

**13 Claims, 9 Drawing Sheets**

USER-PROVIDED INPUT:

- Coins
- Currency (Bills)
- Credit Card
- Debit Card
- Gift Card
- Checks
- Bank Account
- Internet On-line Transaction
- Etc.



TYPES OF OUTPUT:

- Prepaid Card
- Voucher
- Phone Card
- Tickets
- Currency
- Gift Card
- Novelty Card
- Smart Card
- Transfer to Account
- Merchandise
- Internet Service
- Digital Content
- Etc.



U.S. PATENT DOCUMENTS							
1,813,296	A	7/1931	Kidwell	4,597,487	A	7/1986	Crosby et al.
1,847,940	A	3/1932	Giles	4,598,378	A	7/1986	Giacomo
1,945,948	A	2/1934	Morin	4,611,205	A	9/1986	Eglise et al.
2,014,505	A	9/1935	Patche	4,616,323	A	10/1986	Hayashi
2,317,351	A	4/1943	Andalikiewicz et al.	4,616,776	A	10/1986	Blumenthal et al.
2,461,314	A	2/1949	Davis et al.	4,620,559	A	11/1986	Childers et al.
2,569,360	A	9/1951	Weingart	4,622,456	A	11/1986	Naruto et al.
2,644,470	A	7/1953	Labbe	4,641,239	A	2/1987	Takesako
2,865,561	A	12/1958	Rosapepe	4,672,377	A	6/1987	Murphy et al.
2,881,774	A	4/1959	Labbe	4,677,565	A	6/1987	Ogaki et al.
2,960,377	A	1/1960	Simjian	4,694,845	A	9/1987	Zay
3,009,555	A	11/1961	Seckula, Sr.	4,706,577	A	11/1987	Jones et al.
3,048,251	A	8/1962	Bower	4,706,795	A	11/1987	Mikami et al.
3,056,132	A	9/1962	Simjian	4,716,799	A	1/1988	Hartmann
3,065,467	A	11/1962	Prevost	4,723,212	A	2/1988	Mindrum et al.
3,132,654	A	5/1964	Adams	4,733,765	A	3/1988	Watanabe et al.
3,173,742	A	3/1965	Simjian	4,753,625	A	6/1988	Okada et al.
3,196,257	A	7/1965	Buchholtz et al.	4,767,917	A	8/1988	Ushikubo
3,396,737	A	8/1968	Picollo	4,775,353	A	10/1988	Childers et al.
3,415,348	A	12/1968	Wahlberg	4,775,354	A	10/1988	Rasmussen et al.
3,599,771	A	8/1971	Hinterstocker et al.	4,809,837	A	3/1989	Hayashi et al.
3,603,327	A	9/1971	Buchholz et al.	4,814,589	A	3/1989	Storch et al.
3,763,871	A	10/1973	Jobst et al.	4,817,043	A	3/1989	Brown
3,788,440	A	1/1974	Propice et al.	4,831,374	A	5/1989	Masel
3,815,717	A	6/1974	Arseneau	4,833,308	A	5/1989	Humble
3,941,226	A	3/1976	Drakes	4,882,675	A	11/1989	Nichtberger et al.
3,960,293	A	6/1976	Sweet, II et al.	4,883,158	A	11/1989	Kobayashi et al.
3,969,584	A	7/1976	Miller et al.	4,884,672	A	12/1989	Parker
3,998,237	A	12/1976	Kressin et al.	4,896,791	A	1/1990	Smith
4,014,424	A	3/1977	Hall	4,898,564	A	2/1990	Gunn et al.
4,036,242	A	7/1977	Breitenstein et al.	4,910,672	A	3/1990	Off et al.
4,058,954	A	11/1977	Asami et al.	4,915,205	A	4/1990	Reid et al.
4,059,122	A	11/1977	Kinoshita et al.	4,921,463	A	5/1990	Primdahl et al.
4,092,990	A	6/1978	Bayne	4,936,436	A	6/1990	Keltner
4,099,722	A	7/1978	Rodesch et al.	4,953,086	A	8/1990	Fukatsu et al.
4,100,925	A	7/1978	Fukunaga et al.	4,959,624	A	9/1990	Higgins, Jr. et al.
4,106,610	A	8/1978	Heiman	4,963,118	A	10/1990	Gunn et al.
4,124,109	A	11/1978	Bissell et al.	4,964,495	A	10/1990	Rasmussen
4,141,372	A	2/1979	Gdanski et al.	4,969,549	A	11/1990	Eglise et al.
4,167,949	A	9/1979	Hashimoto et al.	4,978,322	A	12/1990	Paulsen
4,172,462	A	10/1979	Uchida et al.	4,995,848	A	2/1991	Goh et al.
4,225,056	A	9/1980	Flubacker	4,997,406	A	3/1991	Horiguchi et al.
4,228,811	A	10/1980	Tanaka et al.	5,010,238	A	4/1991	Kadono et al.
4,230,213	A	10/1980	Spring	5,021,967	A	6/1991	Smith
4,249,552	A	2/1981	Margolin et al.	5,022,889	A	6/1991	Ristvedt et al.
4,266,121	A	5/1981	Hirose et al.	5,025,139	A	6/1991	Halliburton, Jr.
4,275,751	A	6/1981	Bergman	5,027,937	A	7/1991	Parish et al.
4,306,644	A	12/1981	Rockola et al.	5,039,848	A	8/1991	Stoken
4,321,672	A	3/1982	Braun et al.	5,040,657	A	8/1991	Gunn et al.
4,326,620	A	4/1982	Felix et al.	5,055,657	A	10/1991	Miller et al.
4,346,798	A	8/1982	Agey, III	5,056,644	A	10/1991	Parker
4,356,829	A	11/1982	Furuya et al.	5,073,767	A	12/1991	Holmes et al.
4,360,034	A	11/1982	Davila et al.	5,083,765	A	1/1992	Kringel
4,369,442	A	1/1983	Werth et al.	5,083,814	A	1/1992	Guinta et al.
4,369,800	A	1/1983	Watanabe et al.	5,088,587	A	2/1992	Goodrich et al.
4,374,557	A	2/1983	Sugimoto et al.	5,091,713	A	2/1992	Horne et al.
4,376,442	A	3/1983	Gomez et al.	5,098,339	A	3/1992	Dabrowski
4,380,316	A	4/1983	Glinka et al.	5,098,340	A	3/1992	Abe
4,383,540	A	5/1983	De Meyer et al.	5,100,367	A	3/1992	Abe et al.
4,398,550	A	8/1983	Shireman	5,111,927	A	5/1992	Schulze, Jr.
4,412,292	A	10/1983	Sedam et al.	5,114,381	A	5/1992	Ueda et al.
4,412,607	A	11/1983	Collins et al.	5,135,433	A	8/1992	Watanabe et al.
4,434,359	A	2/1984	Watanabe et al.	5,163,868	A	11/1992	Adams et al.
4,436,103	A	3/1984	Dick	5,173,851	A	12/1992	Off et al.
4,442,850	A	4/1984	Austin et al.	5,174,608	A	12/1992	Benardelli et al.
4,447,714	A	5/1984	Lundblad et al.	5,183,142	A	2/1993	Latchinian et al.
4,503,963	A	3/1985	Steiner	5,195,626	A	3/1993	Le Hong et al.
4,504,357	A	3/1985	Holbein et al.	5,201,396	A	4/1993	Chalabian et al.
4,506,685	A	3/1985	Childers et al.	5,219,059	A	6/1993	Furuya et al.
4,509,122	A	4/1985	Agnew et al.	5,226,519	A	7/1993	DeWolfson
4,509,633	A	4/1985	Chow	5,227,874	A	7/1993	Von Kohorn
4,542,817	A	9/1985	Paulson	5,236,339	A	8/1993	Nishiumi et al.
4,543,969	A	10/1985	Rasmussen	5,251,738	A	10/1993	Dabrowski
4,554,446	A	11/1985	Murphy et al.	5,252,811	A	10/1993	Henochowicz et al.
4,555,618	A	11/1985	Riskin	5,265,033	A	11/1993	Vajk et al.
4,558,711	A	12/1985	Ikuta Yoshiaki et al.	5,293,981	A	3/1994	Abe et al.
4,577,744	A	3/1986	Doucet et al.	5,299,673	A	4/1994	Wu
4,587,984	A	5/1986	Levasseur et al.	5,302,811	A	4/1994	Fukatsu et al.
				5,305,195	A	4/1994	Murphy



US 8,103,586 B2

5,316,120 A	5/1994	Ibarrola et al.	6,144,946 A	11/2000	Iwamura et al.
5,316,517 A	5/1994	Chiba et al.	6,152,365 A	11/2000	Kolls
5,321,242 A	6/1994	Heath, Jr.	6,185,545 B1	2/2001	Resnick et al.
5,330,041 A	7/1994	Dobbins et al.	6,193,155 B1	2/2001	Walker et al.
5,350,906 A	9/1994	Brody et al.	6,196,371 B1	3/2001	Martin et al.
5,355,988 A	10/1994	Shirasawa	6,227,343 B1	5/2001	Neathway et al.
5,365,046 A	11/1994	Haymann et al.	6,230,928 B1	5/2001	Hanna et al.
5,374,814 A	12/1994	Kako et al.	6,233,564 B1	5/2001	Schulze, Jr.
5,388,680 A	2/1995	Hird et al.	6,243,450 B1	6/2001	Jansen et al.
RE34,915 E	4/1995	Nichtberger et al.	6,264,545 B1	7/2001	Maggee et al.
5,409,092 A	4/1995	Itako et al.	6,269,349 B1	7/2001	Aieta et al.
5,429,222 A	7/1995	Delay et al.	6,289,324 B1	9/2001	Kawan
5,435,777 A	7/1995	Takatani et al.	6,292,211 B1	9/2001	Pena
5,440,108 A	8/1995	Tran et al.	6,308,887 B1	10/2001	Korman et al.
5,441,139 A	8/1995	Abe et al.	6,318,536 B1 *	11/2001	Korman et al. .... 194/217
5,449,058 A	9/1995	Kotler et al.	6,318,537 B1	11/2001	Jones et al.
5,457,305 A	10/1995	Akel et al.	6,349,972 B1	2/2002	Geiger et al.
5,469,951 A	11/1995	Takemoto et al.	6,363,164 B1	3/2002	Jones et al.
5,479,507 A	12/1995	Anderson	6,375,080 B1	4/2002	Cremonese
5,483,363 A	1/1996	Holmes et al.	6,401,010 B1	6/2002	Takahashi
5,506,393 A	4/1996	Ziarno	6,405,182 B1	6/2002	Cuervo
5,511,114 A	4/1996	Stimson et al.	6,415,262 B1	7/2002	Walker et al.
5,513,738 A	5/1996	Hird et al.	6,484,863 B1	11/2002	Molbak
5,531,640 A	7/1996	Inoue	6,494,365 B1	12/2002	Kozakai et al.
5,554,070 A	9/1996	Takatoshi et al.	6,494,776 B1	12/2002	Molbak
5,555,497 A	9/1996	Helbling	6,502,745 B1 *	1/2003	Stimson et al. .... 235/375
5,560,467 A	10/1996	Takemoto	6,505,774 B1	1/2003	Fulcher et al.
5,564,546 A	10/1996	Molbak et al.	6,536,037 B1	3/2003	Guheen et al.
5,564,974 A	10/1996	Mazur et al.	6,554,184 B1	4/2003	Amos
5,577,959 A	11/1996	Takemoto et al.	6,575,361 B1	6/2003	Graves et al.
5,620,079 A *	4/1997	Molbak ..... 194/217	6,575,362 B1	6/2003	Bator et al.
5,637,845 A	6/1997	Kolls	6,637,576 B1	10/2003	Jones et al.
5,652,421 A	7/1997	Veeneman et al.	6,659,259 B2	12/2003	Knox et al.
5,663,546 A	9/1997	Cucinotta et al.	6,694,300 B1	2/2004	Walker et al.
5,665,952 A	9/1997	Ziarno	6,704,039 B2	3/2004	Pena
D385,488 S	10/1997	Smith et al.	6,705,448 B1	3/2004	Steel et al.
5,679,070 A	10/1997	Ishida et al.	6,736,251 B2	5/2004	Molbak
5,696,908 A	12/1997	Muehlberger et al.	6,745,022 B2	6/2004	Knox
5,699,328 A	12/1997	Ishizaki et al.	6,748,067 B2	6/2004	Malik
5,721,768 A	2/1998	Stimson et al.	6,748,101 B1	6/2004	Jones et al.
5,732,398 A	3/1998	Tagawa	6,758,316 B2	7/2004	Molbak
5,734,722 A	3/1998	Halpern et al.	6,772,146 B2	8/2004	Khemlani et al.
5,743,429 A	4/1998	Morofsky	6,778,693 B2	8/2004	Jones et al.
5,746,299 A	5/1998	Molbak et al.	6,823,172 B1	11/2004	Forrest
5,748,908 A	5/1998	Yu	6,829,596 B1	12/2004	Frazee
5,777,305 A	7/1998	Smith et al.	6,854,581 B2	2/2005	Molbak
5,799,767 A	9/1998	Molbak	6,896,118 B2	5/2005	Jones et al.
5,839,956 A	11/1998	Takemoto et al.	6,918,537 B2	7/2005	Graves et al.
5,842,916 A	12/1998	Gerrity et al.	6,945,457 B1	9/2005	Barcelou
5,868,236 A	2/1999	Rademacher	6,960,986 B2	11/2005	Asama et al.
5,880,444 A	3/1999	Shibata et al.	6,965,667 B2	11/2005	Trabandt et al.
5,905,810 A	5/1999	Jones et al.	6,973,443 B2	12/2005	Drummond et al.
5,909,792 A	6/1999	Gerlier et al.	6,976,570 B2	12/2005	Molbak
5,909,793 A	6/1999	Beach et al.	6,983,836 B2	1/2006	Adams et al.
5,909,794 A	6/1999	Molbak et al.	7,014,108 B2	3/2006	Sorenson et al.
5,943,423 A	8/1999	Muftic et al.	7,028,827 B1	4/2006	Molbak et al.
5,953,504 A	9/1999	Sokal et al.	7,028,891 B2	4/2006	O'Neal
5,956,697 A	9/1999	Usui	7,039,603 B2	5/2006	Walker et al.
5,964,830 A	10/1999	Durrett	7,058,581 B1	6/2006	Young
5,974,146 A	10/1999	Randle et al.	D524,857 S	7/2006	Graves et al.
5,982,918 A	11/1999	Mennie et al.	D524,858 S	7/2006	Graves et al.
5,988,348 A	11/1999	Martin et al.	D524,859 S	7/2006	Graves et al.
5,991,413 A	11/1999	Arditti et al.	7,083,084 B2	8/2006	Graves et al.
6,014,636 A	1/2000	Reeder	7,093,761 B2	8/2006	Smith et al.
6,021,883 A	2/2000	Casanova et al.	7,113,929 B1	9/2006	Beach et al.
6,028,920 A	2/2000	Carson	7,128,261 B1	10/2006	Henderson et al.
6,047,807 A	4/2000	Molbak	7,131,580 B2	11/2006	Molbak
6,047,808 A	4/2000	Neubarth et al.	D533,220 S	12/2006	Graves et al.
6,081,791 A	6/2000	Clark	7,149,336 B2	12/2006	Jones et al.
6,105,007 A	8/2000	Norris	7,156,300 B1	1/2007	Dentlinger
6,105,008 A	8/2000	Davis et al.	7,158,662 B2	1/2007	Chiles
6,105,009 A	8/2000	Cuervo	7,168,615 B2	1/2007	Smith
6,110,044 A	8/2000	Stern	7,219,835 B2	5/2007	Graves et al.
6,116,402 A	9/2000	Beach et al.	7,249,054 B2	7/2007	Keil
6,119,099 A	9/2000	Walker et al.	7,252,226 B2	8/2007	Risafi et al.
6,119,945 A	9/2000	Muller et al.	7,255,268 B2	8/2007	Dentlinger
6,128,402 A	10/2000	Jones et al.	7,303,119 B2	12/2007	Molbak
6,129,275 A *	10/2000	Urquhart et al. .... 235/381	7,331,521 B2	2/2008	Sorenson et al.
6,138,106 A	10/2000	Walker et al.	RE40,186 E	3/2008	Walker et al.



7,343,349	B2	3/2008	Ranzini et al.	2007/0162338	A1	7/2007	Lawe
7,349,566	B2	3/2008	Jones et al.	2008/0087520	A1	4/2008	Molbak
7,494,048	B2	2/2009	Gusler et al.	2008/0126211	A1	5/2008	Kaufhold
7,551,764	B2	6/2009	Chiles et al.	2008/0162299	A1	7/2008	Gusler et al.
7,561,299	B2	7/2009	Elarde et al.	2009/0178897	A1	7/2009	Molbak
7,597,255	B2	10/2009	Deane et al.	2009/0242626	A1	10/2009	Jones et al.
7,653,599	B2	1/2010	Doran et al.	2009/0265269	A1	10/2009	Stoecker
7,778,456	B2	8/2010	Jones et al.				
7,904,565	B2	3/2011	Holden et al.				

## FOREIGN PATENT DOCUMENTS

2001/0023409	A1	9/2001	Keil	CA	2060630	8/1992	
2001/0029484	A1	10/2001	Schultz et al.	CA	2067987	11/1992	
2001/0029488	A1	10/2001	Takeshima et al.	CH	680171	6/1992	
2001/0051902	A1	12/2001	Messner	DE	660354	5/1938	
2001/0054019	A1	12/2001	de Fabrega	DE	2528735	4/1976	
2002/0026423	A1	2/2002	Maritzen et al.	DE	3021327	12/1981	
2002/0046255	A1	4/2002	Moore et al.	DE	3147603	6/1983	
2002/0065724	A1	5/2002	Tsuruda	EP	0313294	4/1989	
2002/0069654	A1	6/2002	Doi et al.	EP	0351217	1/1990	
2002/0082962	A1	6/2002	Farris et al.	EP	0420163	4/1991	
2002/0087462	A1	7/2002	Seifert et al.	EP	0458610	A1	11/1991
2002/0091603	A1	7/2002	Steiger et al.	EP	0477722	4/1992	
2002/0100660	A1	8/2002	Stieber et al.	EP	0857579	A2	8/1998
2002/0107738	A1	8/2002	Beach et al.	EP	0924662	6/1999	
2002/0112162	A1	8/2002	Cocotis et al.	EP	0924664	6/1999	
2002/0152163	A1	10/2002	Bezos et al.	EP	0924665	6/1999	
2002/0156676	A1	10/2002	Ahrens et al.	EP	1178448	2/2002	
2002/0162895	A1	11/2002	Neto	EP	1231579	8/2002	
2002/0174235	A1	11/2002	Likourezos	EP	1497775	A2	1/2005
2002/0179401	A1	12/2002	Knox et al.	FR	2042254	2/1971	
2002/0188511	A1	12/2002	Johnson et al.	FR	2342531	9/1977	
2002/0194122	A1	12/2002	Knox et al.	FR	2845189	4/2004	
2003/0046231	A1	3/2003	Wu	GB	958741	5/1964	
2003/0046249	A1	3/2003	Wu	GB	1564723	4/1980	
2003/0081824	A1	5/2003	Mennie et al.	GB	2095452	9/1982	
2003/0093367	A1	5/2003	Allen-Rouman et al.	GB	2121582	12/1983	
2003/0172031	A1	9/2003	Graves et al.	GB	2153128	8/1985	
2003/0204443	A1	10/2003	Knox	GB	2175427	11/1986	
2003/0233318	A1	12/2003	King et al.	GB	2186411	8/1987	
2004/0024700	A1	2/2004	Petigny	GB	2188467	9/1987	
2004/0133511	A1	7/2004	Smith et al.	GB	2198274	6/1988	
2004/0153402	A1	8/2004	Smith et al.	GB	2223340	4/1990	
2004/0153406	A1	8/2004	Alarcon-Luther et al.	GB	2223872	4/1990	
2004/0181481	A1	9/2004	Carter	GB	2255666	11/1992	
2005/0017502	A1	1/2005	Chariker	IE	80670	A2	11/1998
2005/0038714	A1	2/2005	Bonet et al.	JP	1258092	10/1989	
2005/0038737	A1	2/2005	Norris	JP	1307891	12/1989	
2005/0045714	A1	3/2005	Hermanussen	JP	281193	3/1990	
2005/0051619	A1	3/2005	Graves et al.	JP	363795	3/1991	
2005/0080737	A1	4/2005	Stein et al.	JP	392994	4/1991	
2005/0107068	A1	5/2005	Smith et al.	JP	3252795	A	11/1991
2005/0108155	A1	5/2005	Gallagher et al.	JP	4315288	11/1992	
2005/0144074	A1	6/2005	Fredregill et al.	JP	4344995	12/1992	
2005/0171902	A1	8/2005	Nguyen	JP	5249892	9/1993	
2005/0211768	A1	9/2005	Stillman	JP	5250296	9/1993	
2005/0227769	A1	10/2005	Morrow et al.	SE	44244	9/1918	
2005/0242193	A1	11/2005	Smith et al.	SE	44247	9/1918	
2005/0278216	A1	12/2005	Graves	SE	50250	11/1919	
2006/0015402	A1	1/2006	Graves et al.	SE	8801851	A	11/1989
2006/0037835	A1	2/2006	Doran et al.	WO	WO-9406101	3/1994	
2006/0106679	A1	5/2006	Rosenhaft et al.	WO	WO-9409440	4/1994	
2006/0143120	A1	6/2006	Blackson et al.	WO	WO-9530215	11/1995	
2006/0161490	A1	7/2006	Chakiris et al.	WO	WO-9626508	A1	8/1996
2006/0163341	A1	7/2006	Tulluri et al.	WO	WO-9630877	10/1996	
2006/0183422	A1	8/2006	Defosse et al.	WO	WO-9825241	A2	6/1998
2006/0207856	A1	9/2006	Dean et al.	WO	WO-9836521	A1	8/1998
2006/0213968	A1	9/2006	Guest et al.	WO	WO-9950785	10/1999	
2006/0217996	A1	9/2006	Graves	WO	WO-0010138	2/2000	
2006/0219519	A1	10/2006	Molbak et al.	WO	WO-0011568	A1	3/2000
2006/0231611	A1	10/2006	Chakiris et al.	WO	WO-0075889	A2	12/2000
2006/0255135	A1	11/2006	Smith	WO	WO-0139093	A1	5/2001
2006/0259189	A1	11/2006	Perlow et al.	WO	WO-0142945	A1	6/2001
2006/0293965	A1	12/2006	Burton	WO	WO-0159722	A2	8/2001
2007/0005685	A1	1/2007	Chau et al.	WO	WO-0191035	A1	11/2001
2007/0063021	A1	3/2007	Chakiris et al.	WO	WO-0207071	A1	1/2002
2007/0063052	A1	3/2007	Chakiris et al.	WO	WO-0209001	A1	1/2002
2007/0094129	A1	4/2007	Graves et al.	WO	WO-02075680	A1	9/2002
2007/0108268	A1	5/2007	Graves et al.	WO	WO-03046845	A2	6/2003
2007/0118477	A1	5/2007	Graves et al.	WO	WO-03071387	A2	8/2003
2007/0118478	A1	5/2007	Graves et al.				



WO WO-03090020 A2 10/2003  
 WO WO-2004023252 A2 3/2004  
 WO WO-2004109464 A2 12/2004

## OTHER PUBLICATIONS

- U.S. Appl. No. 12/758,677, filed Apr. 12, 2010, Doran et al.  
 Supplementary European Search Report, European Application No. 03742774, Mailed on Mar. 29, 2010, 3 pages.  
 U.S. Appl. No. 09/661,956, filed Sep. 14, 2000, Molbak.  
 U.S. Appl. No. 09/661,955, filed Sep. 14, 2000, Molbak.  
 U.S. Appl. No. 09/661,048, filed Sep. 14, 2000, Molbak.  
 "First USA: First USA Introduces the Gift Card: Pre-Paid Visa Card Works Better than a Gift Certificate", Business Editors, Nov. 12, 1998.  
 "Slide Changing Apparatus With Slide Jam Protection", Research Disclosure 30509, Sep. 1989.  
 1-800 Gift Certificate, <http://www.800giftcertificate.com>, 12 pages [accessed Feb. 16, 1999].  
 Accessories Brochure, Undated, 3 pages.  
 Business Wire [online], "Cash Goes In, Gift Certificate Comes Out—Coinstar Now Offering Gift Certificates Redeemable at Amazon.com With No Transaction Fee," Sep. 13, 2005 [Retrieved Apr. 4, 2007]. Retrieved from Internet <URL : [http://companyweb/pcsr/clg/PCT-US%2006-44111/Coinstar\\_adds\\_Amazon\\_PCT-US\\_06-44111\\_PRIOR\\_ART.pdf](http://companyweb/pcsr/clg/PCT-US%2006-44111/Coinstar_adds_Amazon_PCT-US_06-44111_PRIOR_ART.pdf)>, 2 pages.  
 Cash, M., "Bank blends new technology with service", *Winnipeg Free Press*, Sep. 4, 1992, 1 page.  
 Cohen, P., "Coinstar Turns Loose Change into iTunes Songs," Yahoo News, [http://news.yahoo.com/s/macworld/20060410/tc\\_macworld/coinstar20060410\\_0](http://news.yahoo.com/s/macworld/20060410/tc_macworld/coinstar20060410_0), Apr. 10, 2006, pp. 1-3.  
 F. Zimmerman & Co., "Reference Manual Contovit/Sortovit, Perconta Money Counting and Sorting Systems", Aug. 1995, pp. I-III, 1-31, and three pages of specifications.  
 Geldinstitute Literature, Mar. 1990 and Apr.-May, 1992, 2 pages.  
 Gift Certificate Express, <http://www.giftcertificateexpress.com>, 10 pages [accessed Feb. 16, 1999].  
 Hamilton, "Turning Cans into Cold Cash", *The Washington Post*, Jul. 2, 1991, pp. D1, D4, 194-209.  
 Home Depot Gift Card [2 pages], undated.  
 Leitch, C., "High-tech bank counts coins," *Innovations*, Report on Business, Sep. 18, 1991, 1 page.  
 Llemeon, J., "Royal's Burlington drive-in bank provides customers 24-hour tellers," *Business Today, The Toronto Star*, Aug. 21, 1991, 1 page.  
 NCR, "NCR 7401 Retail Self-Service Solution," 2 pages, undated.  
 NCR, "NCR 7800 Consumer Price Verifier," <http://www3.ncr.com/product/retail/product/catalog/7800.shtml>, pp. 1-2 [accessed Mar. 18, 1999].  
 Non-Final Office Action; U.S. Appl. No. 10/504,436; Mailed on Feb. 25, 2009; 32 pages.  
 Notice of Allowance, U.S. Appl. No. 10/504,436, Mailed on Nov. 4, 2009, 25 pages.  
 Oxby, M., "Royal Bank opens 'super branch'", *The Gazette Montreal*, Sep. 14, 1991, 1 page.  
 Reis Eurosystems, "Operating Instructions CS 3110 Selectronic Coin Sorting and Counting Machine With Central Sensor", Jul. 1992, pp. 1-12, I-IV.  
 Scan Coin CDS 640 Cash Deposit System Brochure, 2 pages, undated.  
 Scan Coin CDS Cash Deposit System, Undated, 2 pages.  
 Scan Coin correspondence regarding supermarkets, Sep. 11, 1992, 4 pages.  
 Scan Coin International Report, Apr. 1987, 49 pages.  
 Scan Coin Money Processing Systems, Oct. 1, 1988, 10 pages.  
 Scan Coin Newsletter, May 1991, 2 pages.  
 Scan Coin Sales Invoices for Coin Counters in the United States, 1989-1993, 29 pages.  
 Scan Coin Technical Manual CDS MK 1 Coin Deposit System; 1991, 98 pages.  
 Scan Coin Technical Manual SC 102 Value Counter, Undated, 28 pages.  
 Scan Coin Technical Reference Manual CDS Coin Deposit System (odd pages only) 1989, 47 pages.  
 Scan Coin User's Manual, CDS 640, 1988, 7 pages.  
 Scan Coin World Newsletters, Scan Coin AB, Jagerhillgatan 26, S-213 75 Malmo, Sweden, 1988-1990, 12 pages.  
 Sheehan, Michael, "Marriage of Convenience," 3 pages <http://www.kioskbusiness.com/NovDec01/articles/article4.html> [accessed May 19, 2003].  
 Spectrum One, "Spectrum One Network Solutions for Wireless Data Capture," <http://www.symbol.com/ST0000129.HTM>, pp. 1-5 [accessed Mar. 18, 1999].  
 Super Branch Literature, Feb. 1992, 2 pages.  
 Symbol Technologies, Inc., "PriceChecker System," 2 pages, undated.  
 Symbol Technologies, Inc., "Spectrum One SAB-Lite," 2 pages, undated.  
 SymbolSolutions, "Supermarket Buys Two Solutions for the Price of One," <http://www.symbol.com/solution/017SS.HTM>, pp. 1-3 [accessed Mar. 18, 1999].  
 Non-Final Office Action for U.S. Appl. No. 10/504,438, Mail Date Jun. 9, 2011, 14 pages.  
 Non-Final Office Action for U.S. Appl. No. 10/558,907, Mail Date Jun. 8, 2011, 15 pages.  
 European Search Report, European Application No. EP10012806, Mailed on Nov. 19, 2010, 9 pages.  
 Exam Report, European Application No. 03742772, Mailed on Jul. 7, 2010, 6 pages.  
 Examiner's Report, Australian Application No. 2006323111, Mailed on Oct. 22, 2009, 3 pages.  
 Examiner's Report, Canadian Application No. 2,630,352, Mailed on Oct. 15, 2009, 3 pages.  
 Examiner's Report, Canadian Patent Application No. 2,476,500, Mailed on Sep. 25, 2009, 5 pages.  
 Final Office Action for U.S. Appl. No. 11/294,637, Mail Date Aug. 9, 2011, 9 pages.  
 Final Office Action for U.S. Appl. No. 12/177,275, Mail Date Aug. 10, 2011, 13 pages.  
 Final Office Action, U.S. Appl. No. 11/294,637, Mailed on Aug. 19, 2009, 18 pages.  
 Final Office Action; U.S. Appl. No. 10/504,436; Mailed on Jan. 22, 2008; 12 pages.  
 International Search Report and Written Opinion, International Application No. PCT/US06/44111, Mailed on Oct. 8, 2009, 11 pages.  
 Non-Final Office Action for U.S. Appl. No. 10/504,437, Mail Date Apr. 15, 2010, 12 pages.  
 Non-Final Office Action, U.S. Appl. No. 10/504,437, Mailed on Jul. 22, 2009, 22 pages.  
 Non-Final Office Action, U.S. Appl. No. 10/504,438, Mailed on Dec. 1, 2009, 11 pages.  
 Non-Final Office Action; U.S. Appl. No. 10/558,907, Mailed on May 12, 2009, 32 pages.  
 Non-Final Office Action; U.S. Appl. No. 10/504,436; Mailed on Jun. 18, 2007; 24 pages.  
 Non-Final Office Action; U.S. Appl. No. 10/504,436; Mailed on Aug. 11, 2008; 21 pages.  
 Non-Final Office Action; U.S. Appl. No. 10/504,437; Mailed on Sep. 19, 2007; 24 pages.  
 Non-Final Office Action; U.S. Appl. No. 10/504,437; Mailed on Oct. 29, 2008; 51 pages.  
 Non-Final Office Action; U.S. Appl. No. 10/504,438; Mailed on Jan. 16, 2008; 25 pages.  
 Non-Final Office Action; U.S. Appl. No. 10/504,438; Mailed on Feb. 20, 2009; 14 pages.  
 Non-Final Office Action; U.S. Appl. No. 11/230,310; Mailed on Jun. 27, 2008; 12 pages.  
 Non-Final Office Action; U.S. Appl. No. 11/294,637; Mailed on May 16, 2008; 31 pages.

# US 8,103,586 B2

Page 6

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Non-Final Office Action; U.S. Appl. No. 11/294,637; Mailed on Dec. 12, 2008; 10 pages.

Notice of Allowance for U.S. Appl. No. 10/504,437, Mail Date Oct. 19, 2010, 18 pages.

Supplementary European Search Report, European Application No. 03742771, Mailed on Mar. 29, 2010, 3 pages.

Supplementary European Search Report, European Application No. 03742772, Mailed on Mar. 29, 2010, 4 pages.

\* cited by examiner

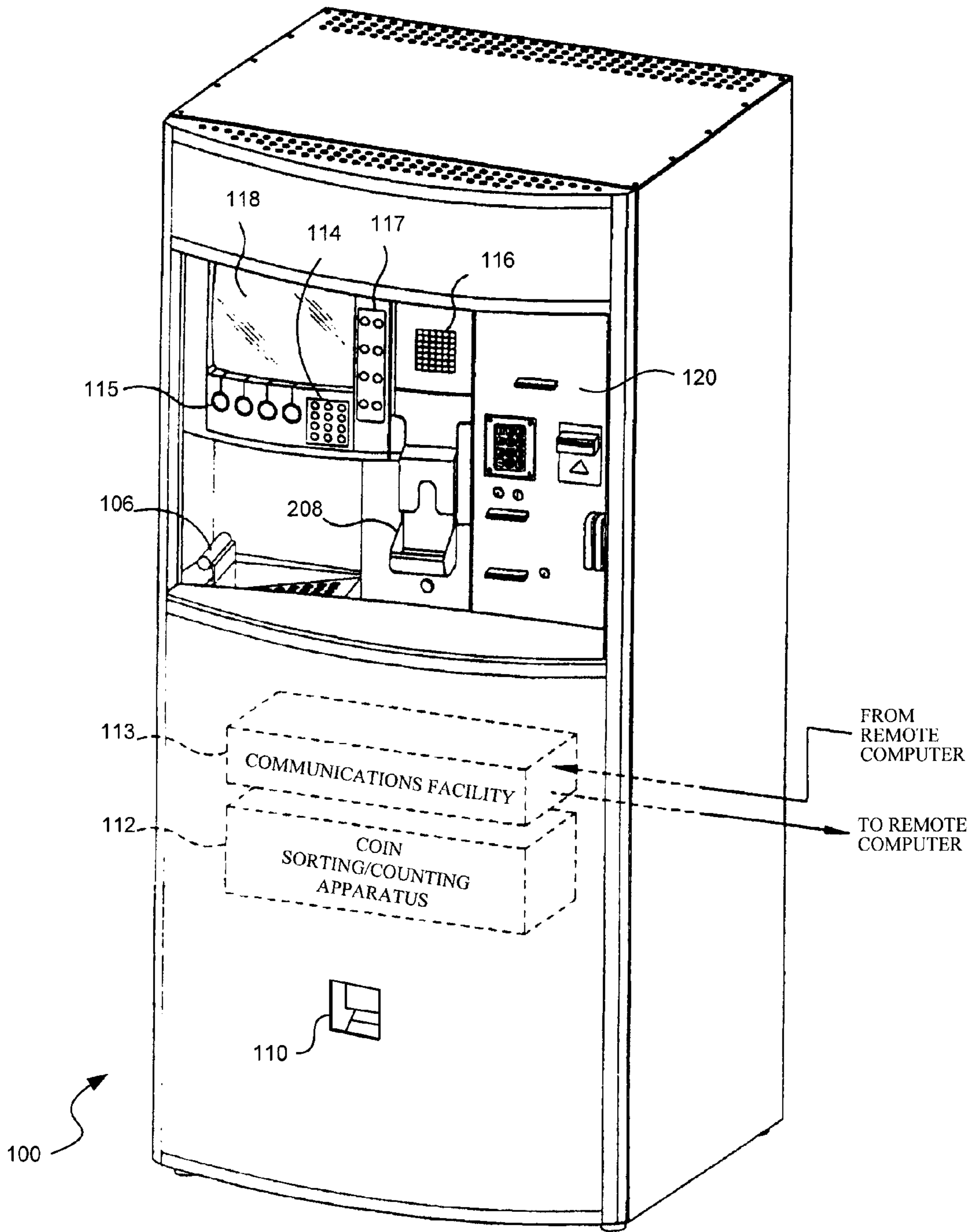
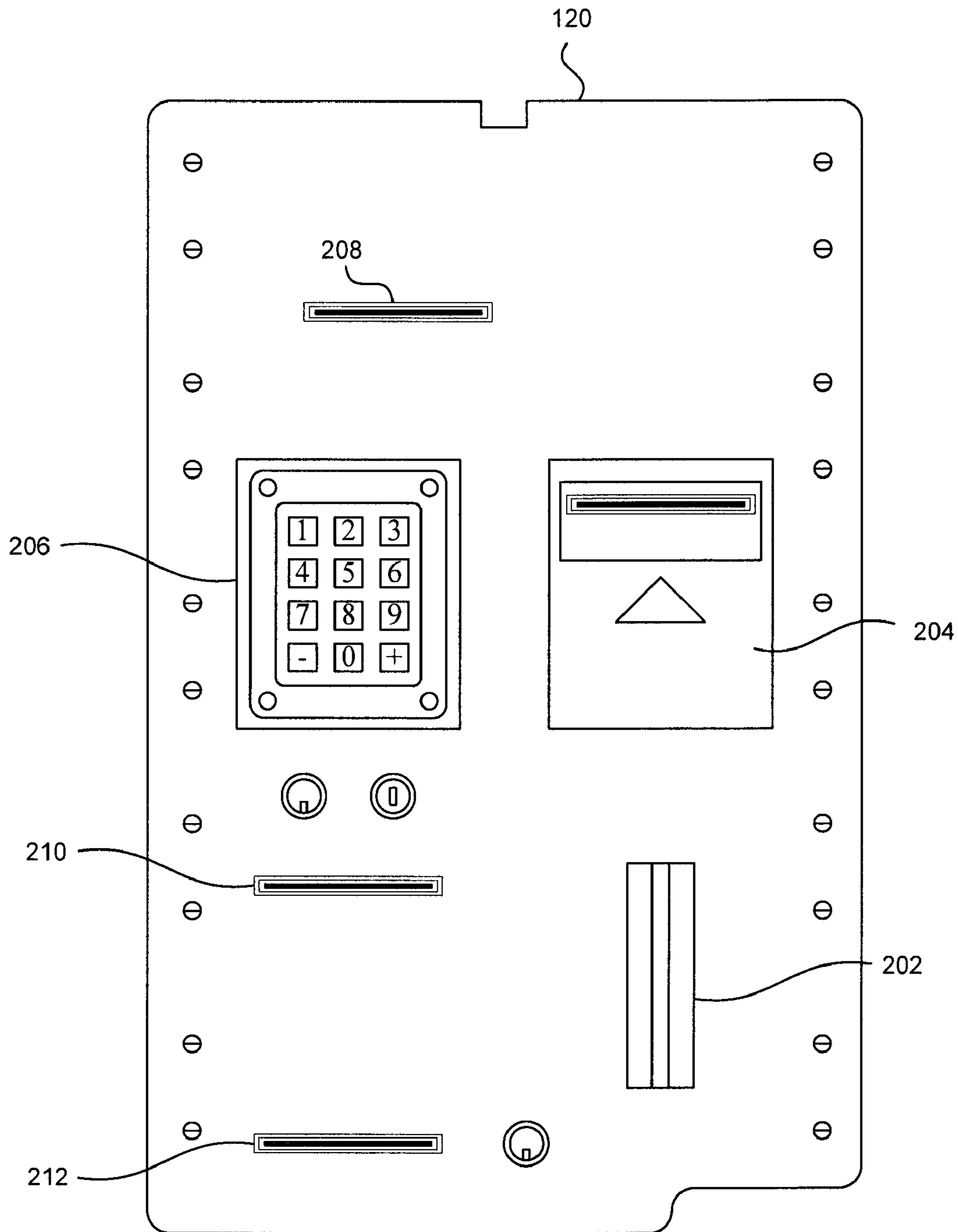


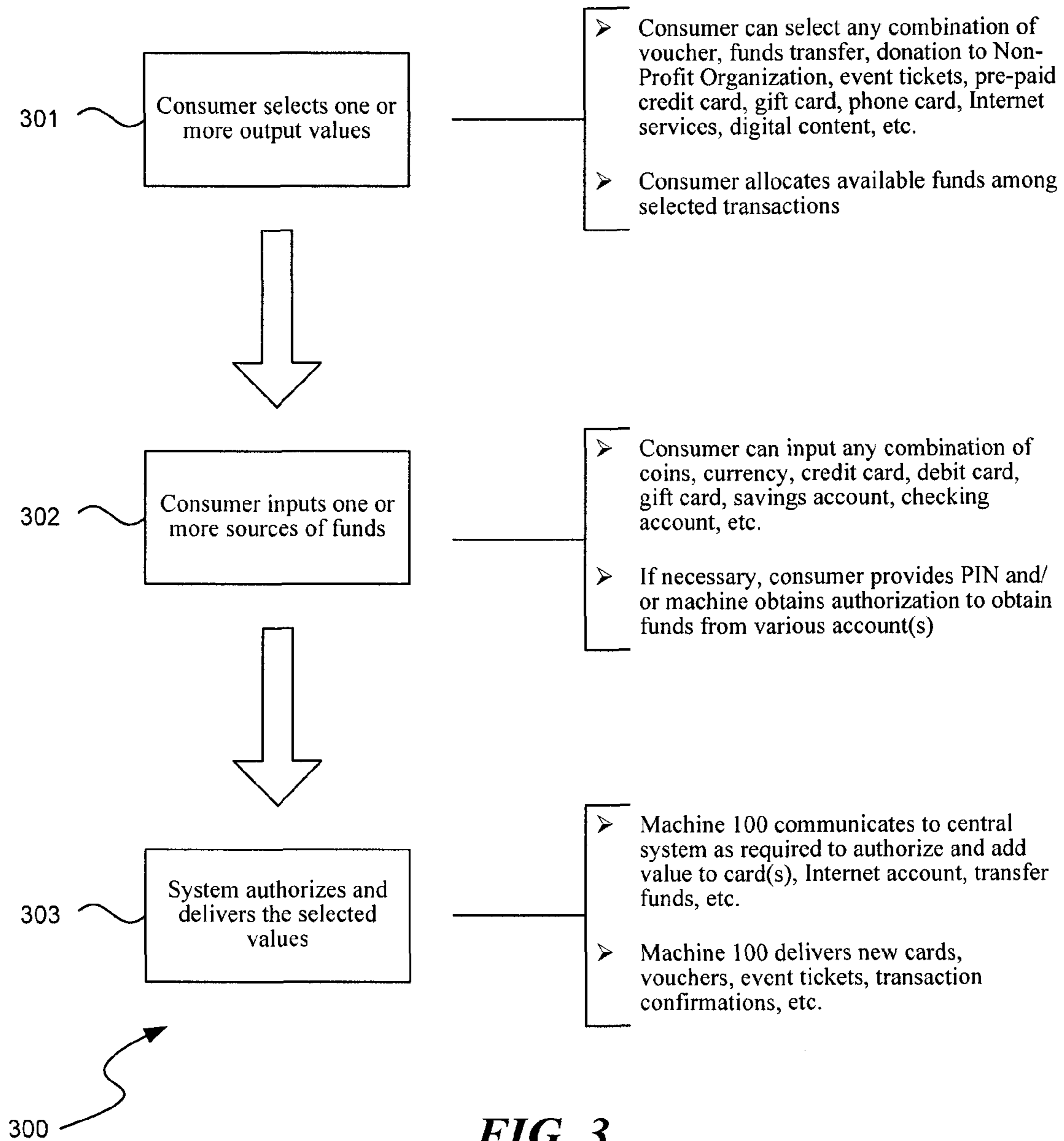
FIG. 1





**FIG. 2**





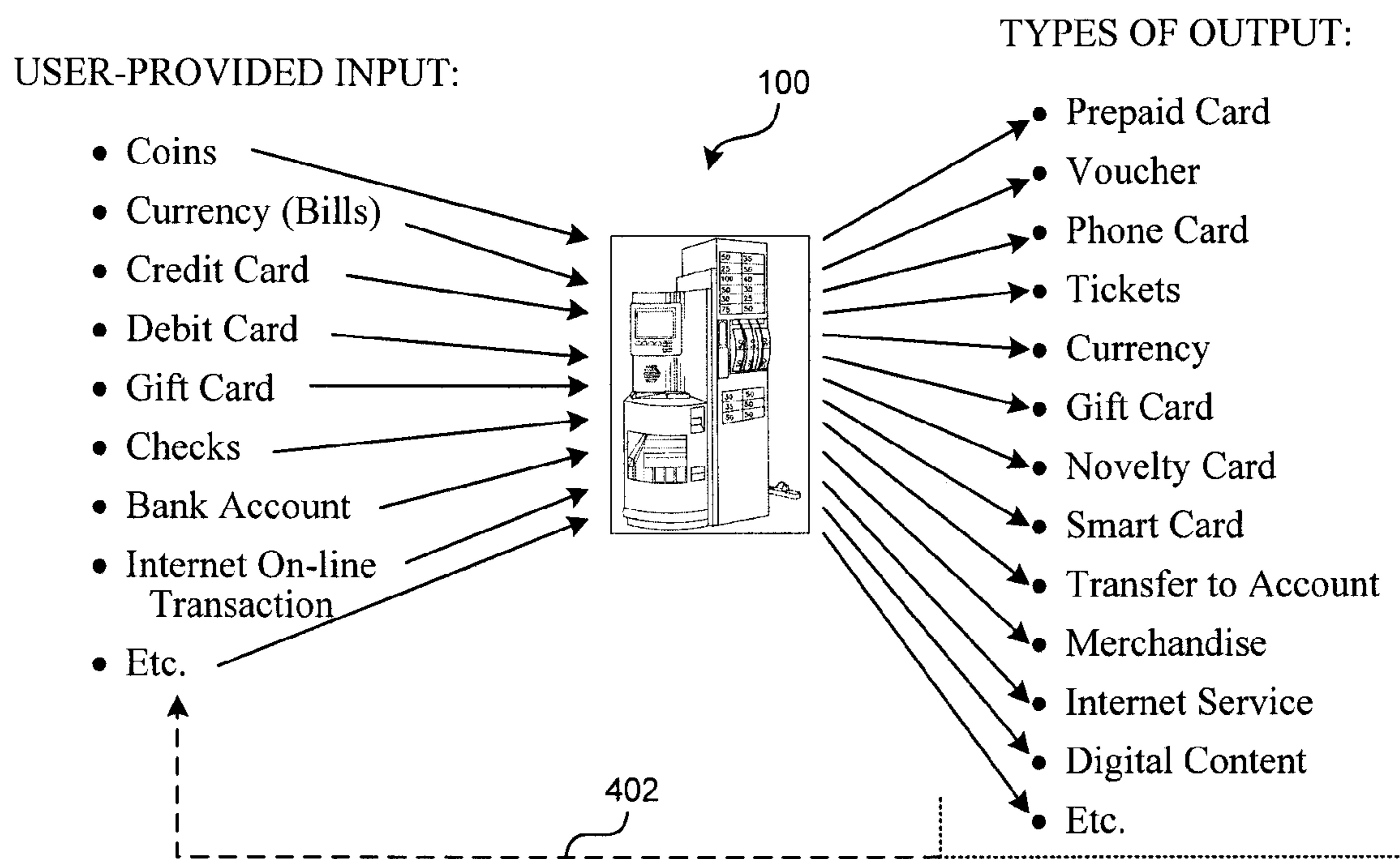


FIG. 4



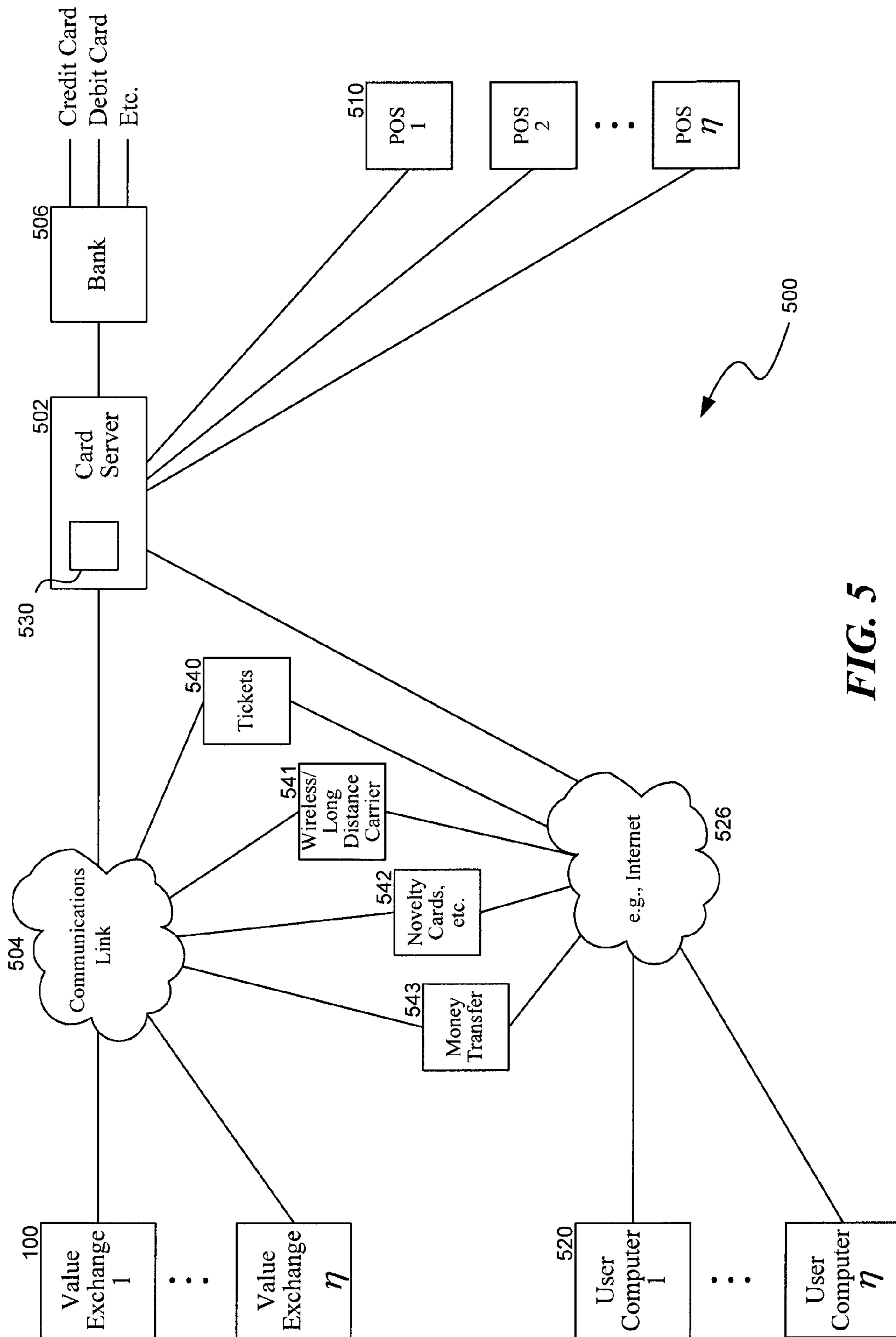
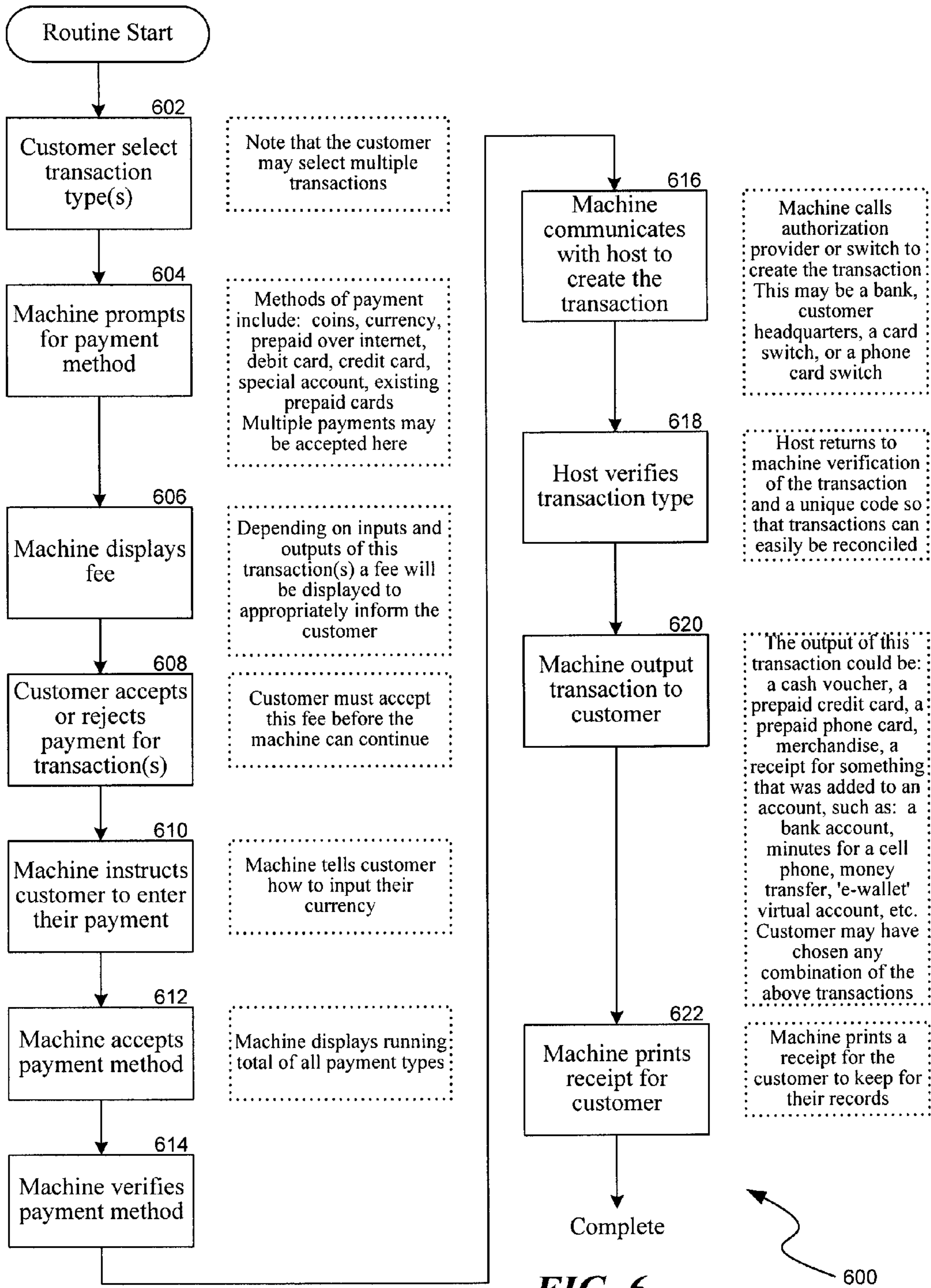


FIG. 5



Note that the customer may select multiple transactions

Methods of payment include: coins, currency, prepaid over internet, debit card, credit card, special account, existing prepaid cards  
Multiple payments may be accepted here

Depending on inputs and outputs of this transaction(s) a fee will be displayed to appropriately inform the customer

Customer must accept this fee before the machine can continue

Machine tells customer how to input their currency

Machine displays running total of all payment types

Machine calls authorization provider or switch to create the transaction  
This may be a bank, customer headquarters, a card switch, or a phone card switch

Host returns to machine verification of the transaction and a unique code so that transactions can easily be reconciled

The output of this transaction could be: a cash voucher, a prepaid credit card, a prepaid phone card, merchandise, a receipt for something that was added to an account, such as: a bank account, minutes for a cell phone, money transfer, 'e-wallet' virtual account, etc.  
Customer may have chosen any combination of the above transactions

Machine prints a receipt for the customer to keep for their records

**FIG. 6**

600



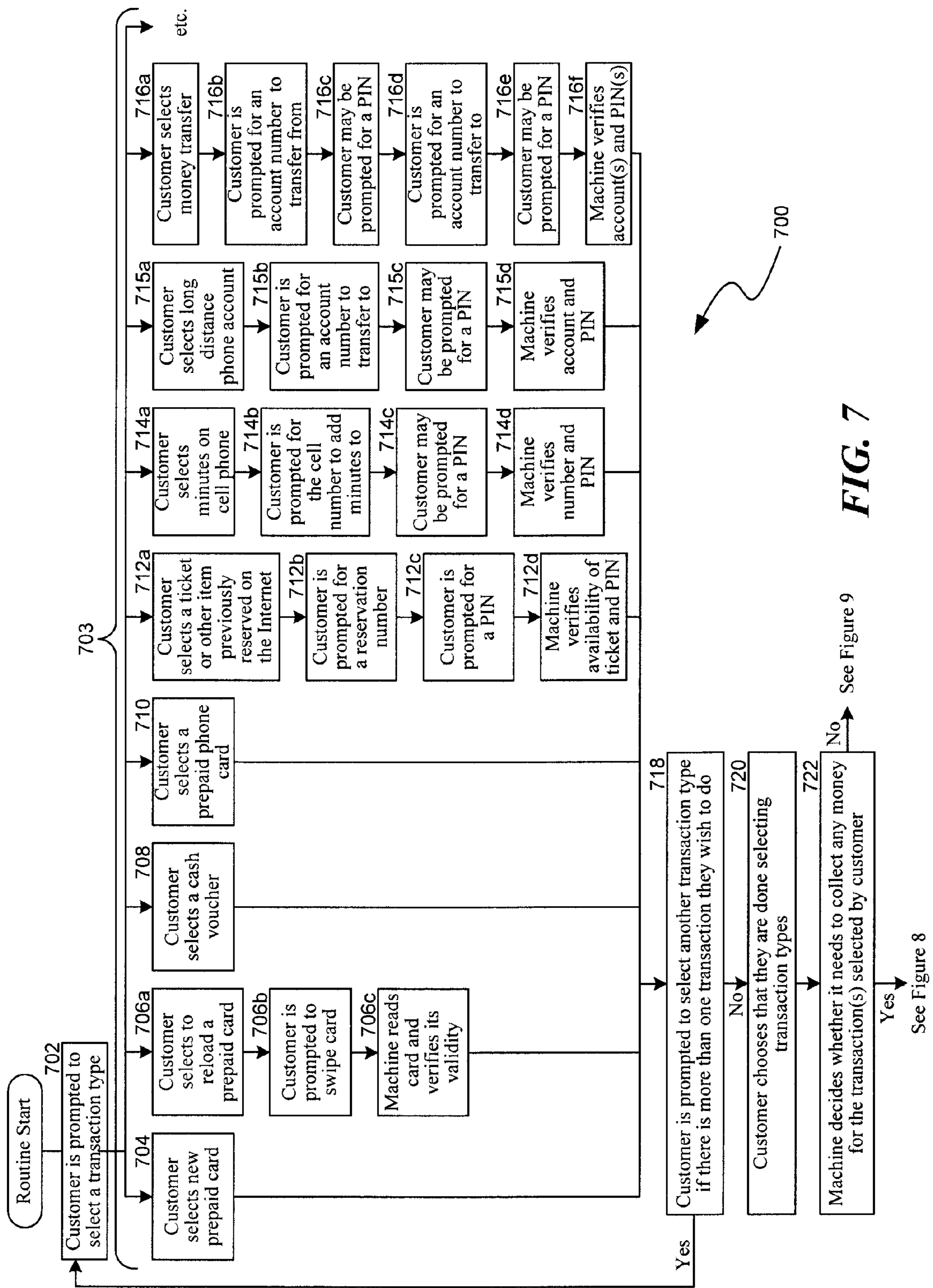


FIG. 7

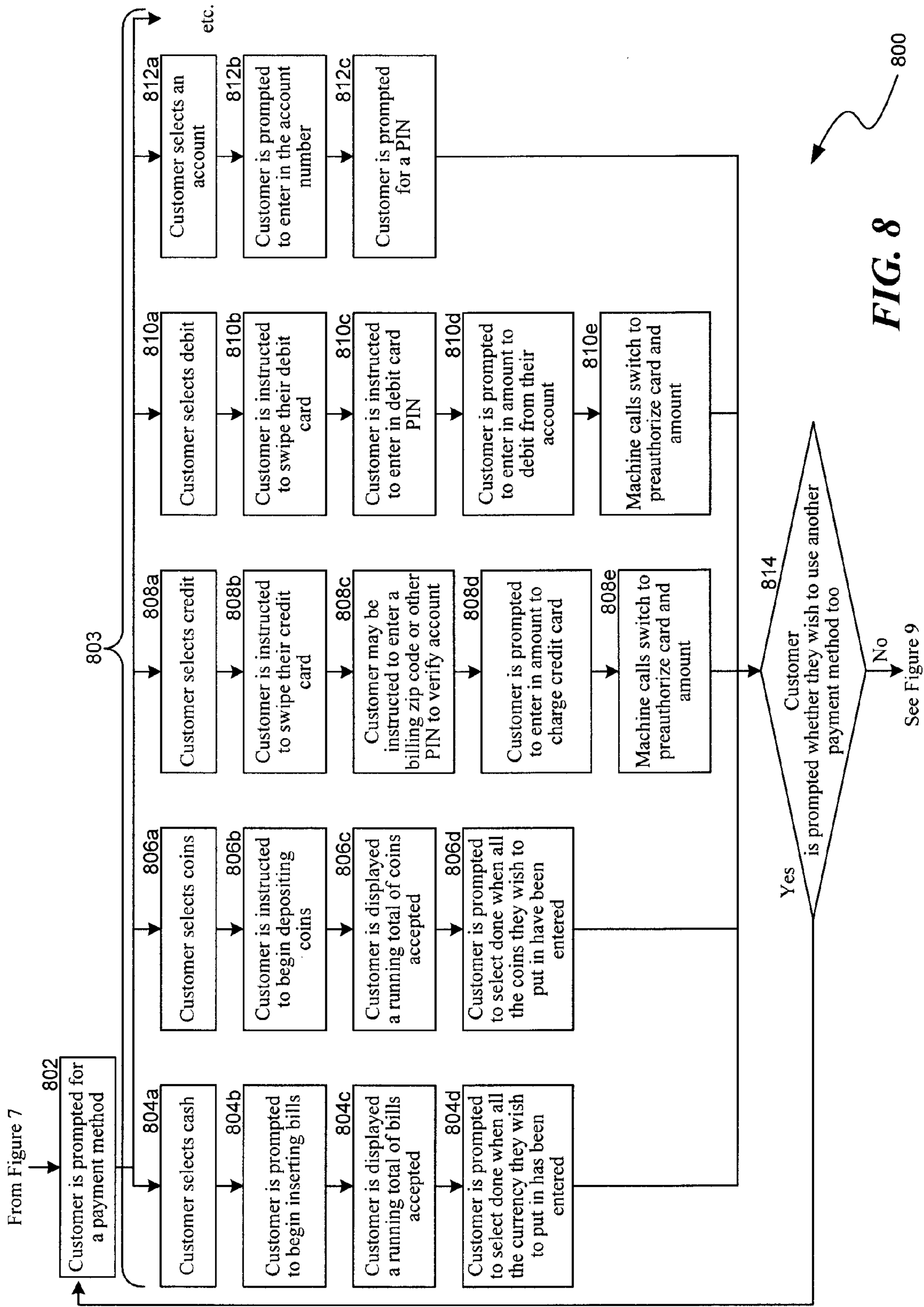


FIG. 8



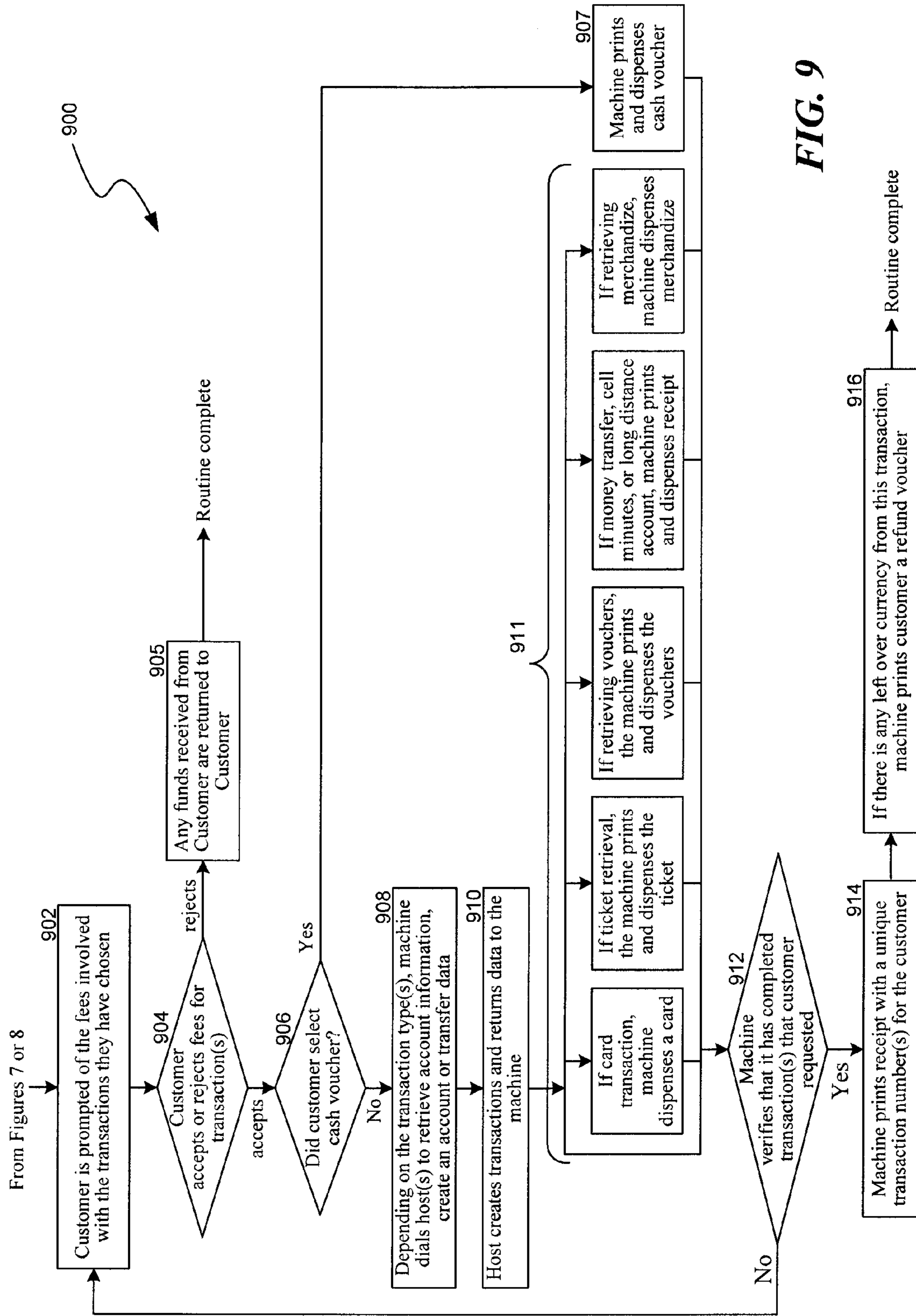


FIG. 9

**METHODS AND SYSTEMS FOR  
EXCHANGING AND/OR TRANSFERRING  
VARIOUS FORMS OF VALUE**

RELATED APPLICATION(S)

This application is a continuation of U.S. patent application Ser. No. 10/504,436, which is a U.S. national phase application of PCT/US03/04603, filed Feb. 14, 2003, which claims priority to the following U.S. Provisional patent applications: U.S. Provisional Patent Application No. 60/357,331, filed Feb. 15, 2002; U.S. Provisional Patent Application No. 60/357,555, filed Feb. 15, 2002; U.S. Provisional Patent Application No. 60/419,735, filed Oct. 18, 2002; and U.S. Provisional Patent Application No. 60/424,377, filed Nov. 6, 2002. This application incorporates all of the patent applications listed above in their entireties by reference.

TECHNICAL FIELD

This application relates generally to methods and systems for exchanging one form of value for another form of value and, more particularly, to methods and systems for transferring value to an account, or for providing or reloading prepaid cash cards, credit cards, phone cards, event tickets, and the like.

BACKGROUND

Various vending machines are configured to dispense selected products to users in exchange for exact amounts of money. Such machines include, for example, food dispensing machines, stamp dispensing machines, ticket dispensing machines, and the like. Other machines are configured to count arbitrary numbers and denominations of coins received from users. One such coin-counting machine is disclosed in U.S. Pat. No. 5,620,079 to Molbak (“the ’079 patent to Molbak”), which is incorporated herein in its entirety by reference. In one embodiment, the Molbak coin-counting machine can dispense a redeemable voucher to a user for an amount related to the value of coins received from the user. This redeemable voucher can be redeemed for cash or merchandise at, for example, a point-of-sale (POS) location in the retail outlet where the machine is located.

Machines also exist for dispensing prepaid telephone cards to users. Such machines typically dispense a selected phone card to a user after the user has deposited a requisite amount of money in the machine. In addition, prepaid long-distance accounts and wireless cell phone accounts also exist whereby a service carrier maintains an account of available minutes for each individual user. Such accounts are often rechargeable and are associated with individual personal identification numbers (PINs). To start an account, a user may initially purchase a phone card containing, for example, sixty minutes of long-distance telephone usage. The number of available minutes are depleted as the user makes phone calls via the account. Some accounts allow the user to add minutes to his/her account by paying for additional time with, for example, a credit card. In this way, the user is able to add minutes to his/her account as the need arises, or to fit their particular budget.

Other methods exist by which customers can purchase prepaid credit cards. In one such method, a customer gives a cashier at a POS sufficient funds to cover the value of a prepaid credit card and any additional service fees charged by the retail outlet. In return for the funds, the cashier provides the customer with a receipt that includes a unique identifica-

tion number and the telephone number of a credit card issuer. The customer then calls the telephone number and provides the credit card issuer with the identification number from the receipt and certain other personal information. Such personal information can include the customer’s mailing address and/or the customer’s social security number. The credit card issuer then provides a credit card account number to the customer over the telephone. The customer can begin using this number for credit card purchases immediately by telephone, mail, or the Internet. The credit card issuer also mails an embossed credit card to the customer that the customer can begin using as soon as it arrives.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a partially schematic isometric view of a value exchange machine configured in accordance with an embodiment.

FIG. 2 is an enlarged front elevation view of a drawer assembly of the value exchange machine of FIG. 1 configured in accordance with an embodiment.

FIG. 3 is a flow diagram illustrating a routine for exchanging various forms of value using the value exchange machine of FIG. 1.

FIG. 4 is a diagram illustrating various forms of value exchangeable using the value exchange machine of FIG. 1.

FIG. 5 is a block diagram illustrating components of a value exchange system configured in accordance with an embodiment.

FIG. 6 is a flow diagram illustrating a routine implemented by the value exchange system of FIG. 5 in one embodiment.

FIG. 7 is a flow diagram illustrating a routine for receiving a transaction selection from a user in one embodiment.

FIG. 8 is a flow diagram illustrating a routine for inputting various forms of payment in one embodiment.

FIG. 9 is a flow diagram illustrating a routine for completing a selected transaction in one embodiment.

DETAILED DESCRIPTION

This application incorporates the following U.S. Patents in their entireties by reference: U.S. Pat. No. 5,746,299; U.S. Pat. No. 6,047,808; U.S. Pat. No. 5,988,348; U.S. Pat. No. 6,196,371; U.S. Pat. No. 6,116,402; U.S. Pat. No. 6,349,972; and U.S. Pat. No. 5,909,793.

This application further incorporates the following co-pending U.S. patent applications in their entireties by reference: U.S. patent application Ser. No. 09/661,956, filed Sep. 14, 2000; U.S. patent application Ser. No. 09/662,414, filed Sep. 14, 2000; U.S. patent application Ser. No. 09/661,955, filed Sep. 14, 2000; U.S. patent application Ser. No. 09/661,048, filed Sep. 14, 2000; and U.S. patent application Ser. No. 10/020,587, filed Oct. 30, 2001.

The following disclosure describes methods and systems for converting one form of value into another form of value. “Value,” as used herein, means anything of monetary worth, such as money, credit, time (e.g., long-distance or cell phone minutes), event and travel tickets, merchandise, and the like. Further, as used throughout this disclosure, the term “card” shall be understood to include both prepaid and non-prepaid cards, unless the particular context requires otherwise. The term “prepaid card” can refer to any instrument useable in commerce in place of money, or any instrument that entitles the bearer to acquire, utilize, or exhaust any commercially available product or service. Examples of prepaid cards in this context include prepaid credit cards, prepaid cash cards, stored-value cards, in-store credit cards, gift cards, prepaid



phone cards, payroll cards, and the like. Throughout this disclosure, for ease of reference the term “prepaid cash card” will be understood to include at least prepaid cash card, prepaid credit card, and stored-value card. Examples of “non-prepaid” cards can include conventional credit cards, and the like. Such prepaid and non-prepaid cards typically include at least one of a readable magnetic stripe, bar code, computer/memory chip, smart card chip, and the like.

In one embodiment, the system described herein can receive a random plurality of coins from a user, count the coins, and, if the user desires, dispense a prepaid card to the user having a value related to the total value of the coins received. This prepaid card may then be used by the user, or another person authorized by the user, to pay for goods and/or services at a variety of different retail locations. In another embodiment, the system disclosed herein can dispense a prepaid card to a user in return for loose coins, paper currency, and/or a valid credit card account number that is provided by the user. In a further embodiment, a user may apply value from an existing prepaid card to purchase another prepaid card. In yet another embodiment, the system disclosed herein can dispense a prepaid card to a user in return for funds debited from a financial institution account (e.g., a savings, checking account, or brokerage account) that is provided by the user. In yet another embodiment, a user may utilize any of the foregoing methods of payment to “top up” (i.e., to “reload,” “recharge,” or otherwise increase the value of) an existing prepaid card. Thus, in accordance with embodiments of the invention, a user can purchase or top up a prepaid card with 1) cash (loose coins and/or currency); 2) credit (e.g., credit cards, check cards, etc.); 3) debit (e.g., debit cards, ATM cards, etc.); 4) existing prepaid cards; 5) bank account funds; or 6) any combination of the above.

The present disclosure, however, is not limited to methods and systems for dispensing prepaid cash cards and phone cards to users. To the contrary, embodiments of the methods and systems disclosed herein can also include dispensing tickets (such as event and travel tickets), novelty items, and redeemable vouchers to users in return for the various forms of payment discussed above. In addition, embodiments of the methods and systems disclosed can also include providing account information to users, such as balance information regarding a particular credit card account, phone card account, on-line account, and the like.

Further, the methods and systems described herein can also be used to transfer funds to an account of a user, to an account of another person, from an account of the user, and/or from an account of another person. Such transactions may include, for example, transferring value to or from a bank account, a brokerage account, a credit card account, long distance phone card account, an on-line payment account, a virtual account, and/or a virtual “e-wallet.” As used herein, the term “account” shall be taken to mean at least the foregoing types of accounts, unless the particular context contradicts such an interpretation. In such transactions, the user may receive a receipt documenting the transaction instead of a card. In one such transaction, the user can utilize any of the methods of payment described above to transfer money from one account to another account (e.g., for a person-to-person payment or for bill payment). Similarly, the user may also elect to transfer the proceeds from any such payment to a bank account for direct deposit, to a cell phone account to obtain additional minutes, or to an on-line account (e.g., an “e-wallet”) for on-line purchases.

Certain embodiments of the methods and systems described herein for exchanging one form of value for another form of value are described in the context of computer-ex-

ecutable instructions performed by a general-purpose computer. For example, in one embodiment these computer-executable instructions are stored on a computer-readable medium, such as a floppy disk or CD-ROM. In other embodiments, instructions are stored on a server computer system and accessed via a communications link or a computer network, such as an intranet, the Internet, or another computer network. Because the basic structures and functions related to computer-readable routines and corresponding implementations are known, they have not been shown or described in detail here in order to avoid unnecessarily obscuring the described embodiments.

Certain specific details are set forth in the following description and in FIGS. 1-9 to provide a thorough understanding of various embodiments of the invention. Those of ordinary skill in the relevant art will understand, however, that the invention may have additional embodiments which may be practiced without several of the details described below. In other instances, those of ordinary skill in the relevant art will appreciate that the methods and systems described can include additional details without departing from the spirit or scope of the disclosed embodiments. In addition, some well-known structures and systems often associated with card dispensing apparatuses and methods and associated computer networks have not been shown or described in detail below to avoid unnecessarily obscuring the description of the various embodiments of the invention.

In the figures that follow, identical reference numbers identify identical or at least generally similar elements. To facilitate the discussion of any particular element, the most significant digit or digits in any reference number refers to the figure in which that element is first introduced. For example, element 120 is first introduced and discussed with reference to FIG. 1. In addition, any dimensions, angles and other specifications shown in the figures are merely illustrative of particular embodiments of the invention. Accordingly, other embodiments of the invention can have other dimensions, angles and specifications without departing from the spirit or scope of the present disclosure.

FIG. 1 is a partially schematic isometric view of a value exchange machine 100 configured in accordance with an embodiment. In one aspect of this embodiment, the machine 100 includes a coin input region or tray 106, a voucher outlet 108, a coin return 110, a coin sorting/counting apparatus 112 (shown schematically), and a communications facility 113 (also shown schematically). The machine 100 can further include various user-interface devices, such as a first keypad 114, user-selection buttons 115, a speaker 116, a display screen 118, and a touch screen 117. In another aspect of this embodiment, the foregoing features of the value exchange machine 100 can be at least generally similar in structure and function to one or more of their counterparts as described in the '079 patent to Molbak. Accordingly, these features can be utilized in various embodiments as described in the '079 patent to Molbak to provide a redeemable cash voucher to a user in return for coins deposited by the user in the coin tray 106. In other embodiments, the machine 100 can have other features in other arrangements without departing from the spirit or scope of the present invention. As described in greater detail below, the machine 100 can also include a drawer assembly 120 that has additional value exchange functionalities.

FIG. 2 is an enlarged front elevation view of the drawer assembly 120 of FIG. 1 configured in accordance with an embodiment. In an aspect of this embodiment, the drawer assembly 120 includes a card reader 202, a bill acceptor 204, and a second keypad 206 (which may be encrypted). The bill



acceptor **204** can be configured to receive paper currency (referred to herein simply as “currency”). The card reader **202** can be configured to read all forms of data storage media typically found on wallet-sized cards, such as conventional credit cards, debit cards, smart cards, and the like. In addition, in some embodiments, the card reader **202** can also be configured to write data to suitable data storage media typically found on such cards. Such data storage media can include one or more of magnetic stripes, bar codes, smart chips, and the like. The second keypad **206** can be used to enter information often associated with such cards, including a PIN.

In addition to the foregoing user-interface devices, the drawer assembly **120** can also include a number of output devices. For example, the drawer assembly **120** can include a card outlet **208**, a ticket outlet **210**, and a receipt outlet **212**. In the illustrated embodiment, the card outlet **208** is a horizontal slot for dispensing cards, such as prepaid cash or phone cards, and other similar items. The ticket outlet **210** of the illustrated embodiment can be a similar horizontal slot for dispensing travel or event tickets, such as airline tickets or tickets for a basketball game or a concert. As described in greater detail below, in one embodiment these tickets may have been reserved, ordered, or prepurchased on-line by a user over the Internet.

While the aspects and features of the drawer assembly **120** discussed above are representative of those that may be included as components of the value exchange machine **100** of FIG. **1**, those of ordinary skill in the relevant art will understand that additional features may be included without departing from the spirit or scope of the present disclosure. For example, although the drawer assembly **120** of the illustrated embodiment is shown with only one card outlet **208** and one ticket outlet **210**, in other embodiments more card and ticket outlets may be included, depending on the particular application of the machine **100**. Furthermore, in yet other embodiments one or more of the foregoing features may be omitted from the value exchange machine **100** in various applications without departing from the spirit or scope of the present disclosure.

Use of the value exchange machine **100** to exchange one form of value for another form of value will now be explained in accordance with a few examples. Referring to FIG. **1**, in one embodiment transaction options are displayed for a user on the display screen **118**, and can include one or more of purchasing a prepaid cash card; purchasing a prepaid phone card; transferring money to an account; topping up an existing credit card account, cash card account, long distance phone card account, or wireless account; receiving a redeemable cash voucher, and/or performing other transfers or purchasing other items. The user can select the desired transaction or transactions by using the first keypad **114**, the touch screen **117**, and/or one or more of the selection buttons **115** in response to prompts shown on the display screen **118**. If the user selects, for example, to purchase a prepaid cash card, then the machine **100** prompts the user to input his/her preferred payment option. In one embodiment, the user can elect to pay with coins and can deposit a plurality of randomly oriented coins into the tray **106** and hingeably rotate the tray **106** upwardly to deliver the coins to the coin sorting/counting apparatus **112**. The coin sorting/counting apparatus **112** then counts the coins and displays the total to the user on the display screen **118**. If the user accepts this total and, if applicable, any related service fees, then the machine **100** prompts the user to indicate how much of the total the user wishes to put on the prepaid cash card. Once the user has input this value, the machine **100** dispenses the prepaid cash card to the user via the card outlet **208**, assuming the user deposited

enough money to cover the requested value. If any funds are left over from the transaction, the machine can issue a redeemable cash voucher to the user for the difference. Alternatively, the user can apply the remaining funds toward another card or service, or transfer the remaining funds to an account, such as a checking or savings account.

In another embodiment, a user may desire to purchase a prepaid cash card with an existing credit card. In this embodiment, the user swipes the existing credit card through the card reader **202** (FIG. **2**). After reading the card, the machine **100** prompts the user to input a PIN or other security code via the second keypad **206**. Next, the machine **100** prompts the user to enter the desired dollar amount of the new prepaid cash card via the first keypad **114**. After authorizing the transaction (by communicating, for example, with a remote bank via the communications facility **113**), the machine **100** dispenses the new prepaid cash card to the user via the card outlet **208**. In a further embodiment, the user can pay for a prepaid cash card at least in part by depositing a sufficient number of bills into the bill acceptor **204**.

In yet another embodiment, a user can purchase a prepaid credit card with the machine **100** as follows. First, the user uses the touch screen **117**, the first keypad **114**, and/or the user-selection buttons **115** to select the prepaid credit card purchase option. In one aspect of this embodiment, the customer then deposits payment by inserting paper currency into the bill acceptor **204**, depositing coins into the coin tray **106** and rotating the tray upwardly to deliver the coins, and/or by swiping a debit or credit card through the card reader **202**. In other embodiments, the customer can deposit payment in other ways. For example, in other embodiments, the machine **100** may have a coin input feature that differs from the rotatable coin tray **106** without departing from the present disclosure. After confirming receipt of the funds, the machine **100** dispenses a receipt or other media (card facsimile, etc.) to the customer from the receipt outlet **212**.

In one aspect of this embodiment, the receipt includes instructions directing the user to call a particular telephone number and activate their new prepaid credit card account. Per the instructions, the user calls the telephone number and activates his/her account by providing certain personal information, such as name and mailing address. The user then receives a unique number (such as a 16-digit number for their new prepaid credit card account) from the credit card account issuer over the telephone. The user can use this number immediately for credit-based purchases either by telephone, mail, or the Internet. Further, within a few days, the user receives a personalized, embossed prepaid credit card via the mail that can be used anywhere the particular prepaid credit card is accepted. In addition, the user can also have the option of attaching a PIN to their new prepaid credit card account that will allow them to make cash withdrawals at ATMs.

In a slightly different embodiment, a user can purchase a prepaid credit card with the machine **100** as follows. First, the user uses the touch screen **117**, the keypad **114**, and/or the user-selection buttons **115** to select the purchase of a prepaid credit card. The user then deposits payment by, for example, inserting paper currency into the bill acceptor **204**, depositing coins into the coin tray **106**, and/or by swiping a debit or credit card through the card reader **202**. After confirming receipt of payment, the machine **100** dispenses the prepaid credit card to the user from the card outlet **208**. In this embodiment, the card can be used immediately anywhere the particular prepaid credit card is accepted.

In a further embodiment, a user can use the machine **100** to “reload” or add funds to a card (e.g., a cash, credit, or stored-value card). In this embodiment, the user utilizes the touch



screen 117, the first keypad 114, and/or the user-selection buttons 115 to select the “reload” or “recharge” transaction, then swipes the card they would like to reload through the card reader 202. The user then deposits payment for the reload amount using coin, currency, and/or credit as described above. After confirming the receipt of funds, the machine 100 dispenses a receipt to the user via the receipt outlet 212. The funds received from the user are then credited to the desired card (or associated account), and are available for use immediately or within a relatively short time. In this embodiment and the previous embodiment, the user is not required to place a telephone call to a third-party service, such as a prepaid credit card account issuer, to activate the account.

As mentioned above, a prepaid cash card is only one form of “value” that can be output by the machine 100 in return for various forms of monetary exchange provided by a user. For example, in other embodiments the machine 100 can output tickets from the ticket outlet 210 or prepaid phone cards from the card outlet 208 after receiving sufficient funds via one or more of the card reader 202, the bill acceptor 204, or the coin input tray 106.

In yet another embodiment, a user may elect to use any of the fund input methods discussed above to electronically transfer money. In such transactions, the user may not receive a card having a value. Instead, the user may receive a receipt or other record documenting the transaction. For example, in one such transaction the user can utilize any of the methods of payment described above to transfer money to his or her account (e.g., a savings, checking, or credit card account) or to an account of another person (e.g., for a person-to-person payment or for a bill payment). Similarly, the user can also elect to transfer the proceeds from any such payment to a bank account for direct deposit, to a cell phone account (e.g., for long-distance telephone minutes), or to an on-line account (e.g., an “e-wallet”) for on-line purchases.

In a further embodiment, a user can top up a phone account (e.g., a long distance calling card account or a wireless account) with the machine 100. In one aspect of this embodiment, the display screen 118 can present or display a prompt or menu to the user asking if he or she would like to top up their phone card account. If so, the user selects his or her carrier and/or enters the corresponding account number or phone number. (In another embodiment, the user can swipe his/her card through the card reader 202 to have the account number read from the card.) For a PIN-based transaction, the user selects a predefined dollar amount to add to his/her account and then deposits money or other funds into the machine 100 in one of the ways described above. For example, in one embodiment, the user can deposit currency via the bill acceptor 204. In another embodiment, the user can deposit coins via the coin tray 106. After depositing the funds, the user receives a printout or receipt with a PIN via the receipt outlet 212. The user then calls the carrier and enters the PIN to activate the additional minutes added to his/her account. In another embodiment, the user has the option of selecting either a predefined dollar amount of minutes or entering a specific dollar amount he/she wishes to add to his/her account. In this embodiment, once the user has inserted his or her payment, the user receives a receipt confirming the transaction and the funds are immediately credited to the user’s phone card account. As will be appreciated by those of ordinary skill in the relevant art, in other embodiments the machine 100 can be used in other ways to purchase or top up cards or associated accounts without departing from the spirit or scope of the present disclosure.

FIG. 3 is a flow diagram illustrating a routine 300 for exchanging various forms of value with the value exchange

machine 100 of FIG. 1. In block 301, the user selects one or more forms of value desired as output. For example, a user can select any combination of redeemable cash voucher, prepaid cash card, gift card, phone card, ticket or other merchandise, etc. In addition or alternatively, the user may elect to transfer funds to or from an existing account, for example, to pay off a credit card balance; to increase funds in a checking, savings, or brokerage account; to add time to a long distance account; for a person-to-person payment; or for an “e-wallet.” Similarly, the user may elect to “top up” an existing prepaid cash card or cell phone account with additional value or minutes, respectively. Further, the user may elect to donate any portion of the deposited value to a nonprofit organization.

In block 302, the machine 100 accepts one or more types of funds from the user. As explained above, funds can include any combination of coins, currency, credit card, debit card, gift card, existing prepaid cash card or phone card, etc. If a credit card is used for payment, the machine 100 validates the credit card and obtains authorization to debit the funds from the credit card account or accounts. In one embodiment, this is accomplished by communication between the machine 100 and one or more remote computers via the communications facility 113. The remote computers can access one or more financial institutions that control the authorization and debiting/crediting of credit card accounts. In block 303, the machine 100 receives authorization for the desired transaction(s) from the remote computers and dispenses the new form of value (e.g., a prepaid cash card, phone card, redeemable cash voucher, cash, event tickets, and/or associated transaction confirmation numbers) to the user. If the transaction involved topping up an existing card, then the user receives confirmation that the value associated with the card has been increased. Similarly, if the transaction involved a transfer of money to an account, then the user receives confirmation that the transfer has occurred.

FIG. 4 is a diagram illustrating the various forms of value that are exchangeable with the value exchange machine 100 in accordance with an embodiment. User-provided inputs are shown on the left side of FIG. 4 and can include coins, currency, or credit from cash cards, credit cards, debit cards, gift cards, bank account transfers, brokerage account transfers, on-line transactions, and the like. Outputs from the machine 100 are shown on the right side of FIG. 4 and can include prepaid cards (e.g., cash and credit cards), redeemable vouchers, phone cards, tickets (e.g., event tickets or travel tickets), currency (e.g., leftover change from a transaction), gift cards (e.g., gift certificates), novelty cards (e.g., baseball cards or similar items), smart cards (e.g., stored-value cards that contain a record of monetary value on the card itself), and/or account transfers. Input to the machine 100 may include any combination of the inputs shown in FIG. 4, and output may include any combination of the outputs shown in FIG. 4. In other embodiments shown by the dotted line 402 in FIG. 4, one or more of the listed outputs may also be used as inputs. For example, in one other embodiment a user can convert a prepaid card to cash by surrendering the card to the machine or by swiping the card and instructing the machine to dispense either cash or a redeemable voucher equivalent to the value remaining on the card. In a further embodiment, a user can transfer money from a bank account to a card.

In yet other embodiments, a user can access account information with the machine 100. For example, in one aspect of this embodiment, the user can swipe a card and determine the amount of funds (or phone minutes in the case of phone cards) remaining on the card or in an associated account. In all the



foregoing embodiments, the operator of the value exchange machine may elect to charge the user a fee for performing the desired transaction.

FIGS. 5-9 and the associated discussion provide a brief, general description of a suitable computing environment in which aspects of the invention can be implemented. Although not required, embodiments of the invention are described in the general context of computer-executable instructions, such as routines executed by a general purpose computer (e.g., a server or personal computer). Those of ordinary skill in the relevant art will appreciate that aspects of the invention can be practiced with other computer system configurations, including Internet appliances, hand-held devices, wearable computers, cellular or mobile phones, multi-processor systems, microprocessor-based or programmable consumer electronics, set-top boxes, network PCs, mini-computers, mainframe computers, and the like. Further, aspects of the invention can be embodied in a special-purpose computer or data processor that is specifically programmed, configured, or constructed to perform one or more of the computer-executable instructions described in detail below. Indeed, the term "computer," as used generally herein, refers to any of the above-mentioned devices, as well as any data processor. In addition, throughout the discussion that follows, the term "web site" or similar will be understood to include, where required by the context, the associated server computer, databases, and other known structures and functions required to implement a web site.

FIG. 5 is a block diagram illustrating components of a value exchange system 500 configured in accordance with an embodiment. In one aspect of this embodiment, one or more value exchange machines 100 are connected to a server computer 502 via a first communications link 504. The value exchange machines 100 of this embodiment can be at least generally similar to the value exchange machine 100 discussed above with reference to FIGS. 1-4. The first communications link 504 may be a radio frequency (RF) communications link (e.g., wireless communications link), a modem, a computer network (such as a local area network (LAN)) an intranet, or the Internet. In another aspect of this embodiment, the first communications link 504 can also include or be associated with a "host" computer that receives communications from the value exchange machine(s) 100 and sends corresponding communications to appropriate recipient computers to carry out various aspects of the value exchange system 500.

In a further aspect of this embodiment, the server computer 502 is connected to a financial institution computer 506. The financial institution computer 506 can be configured to facilitate the electronic transfer of funds between various financial accounts and/or institutions. For example, the financial institution computer 506, in one embodiment, can communicate with a credit card institution to facilitate the debiting and crediting of a credit card account. In other embodiments, the financial institution computer 506 can communicate with a bank, credit union, or brokerage firm to facilitate the debiting and crediting of various types of accounts typically found in such institutions. Similarly, in another embodiment, the financial institution computer 506 can communicate with a prepaid card-issuing institution to facilitate management of prepaid card accounts. In another aspect of this embodiment, the server computer 502 can be connected to one or more POS computers 510. The POS computers 510 can be located at retail outlets where users of the value exchange machine(s) 100 use their prepaid cash or credit cards to pay for goods and/or services.

In one embodiment, a user wishing to purchase, for example, a prepaid cash card, visits one of the value exchange

machines 100 at, for example, a retail outlet, and selects the desired transaction. If the user wishes to purchase the prepaid card using an existing credit card, the user "swipes" the existing credit card through the card reader 202 (FIG. 2) on the machine 100. After the user has entered any necessary codes or PINs, transaction information routes via the first communications link 504 to the server computer 502. The server computer 502 can then communicate with the financial institution computer 506 to authorize the transaction on the user's credit card account. If the financial institution computer 506 validates the transaction, it sends an authorization to the machine 100 to issue the user a prepaid cash card for the desired amount. In one aspect of this embodiment, in response to receiving the authorization, a card dispenser positioned within the machine 100 receives a card from an associated card hopper, reads an identification number off the card, and dispenses the card to the user. The machine 100 sends the card number to the server computer 502, and the server computer 502 updates a database with the card number and the associated value of the card, noting that that particular card is now active for usage. In this example, the server computer 502 can receive both card purchase transaction data and card "top up" transaction data originating from the machine 100.

In another aspect of this embodiment, a card value (e.g., dollar value or minutes) associated with a card number is stored in a database, and the database is updated to reflect the reduction in value that occurs each time the card is used to purchase goods and/or services. For example, when a user, or someone the user has authorized, presents the card at a POS to purchase goods and/or services, the POS computer 510 communicates with the server computer 502 to receive authorization for the transaction. The server computer 502 determines if the card number is active and if the card contains enough value to cover the desired purchase. If the transaction is authorized and concluded, then the server computer 502 updates the database with the present value of the card. Although the server computer 502 is illustrated as a single computer in FIG. 5, in other embodiments the function of the server computer 502 can be provided by two or more computers without departing from the spirit or scope of this disclosure. For example, in one such embodiment a first computer will provide the authorization function by communicating with various financial institutions, and a second computer will maintain and update the databases containing card usage information and status.

In another embodiment of the value exchange system 500, the value of a card (e.g., a "smart card") may be recorded (i.e., written) directly on the card itself (e.g., with a computer memory/processor on the card) and decremented each time the card is used. In this embodiment, the value exchange machine 100 can both read and write to cards and, accordingly, access to one or both of the server computer 502 and the financial institution computer 506 may not be required. For example, in one embodiment, the user selects the desired type of card (e.g., a prepaid cash card), and inputs funds (e.g., by depositing coins and/or cash). In this embodiment, after counting the funds received from the user to arrive at a value, the machine 100 can write that particular value to a new card and dispense the card to the user. In another embodiment, the user may desire to add value to an existing "smart card," "stored-value card," or the like. In this embodiment, after inputting his/her funds, the user can submit the existing smart card to the machine 100 to have the additional value written directly to the card (i.e., to "recharge" or "reload" the card). In either embodiment, when the card is subsequently used in



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commerce, a card writer at the POS can decrement the card for the amount of the particular purchase.

The value exchange system **500** can include other functionalities in addition to those discussed above. For example, in one embodiment the value exchange system **500** allows a user to access an account web site **530** from a remote general-purpose user computer **520**, such as a personal computer. In one aspect of this embodiment, the account web site **530** is hosted by the card server **502** and can be accessed over a second communications link **526**. The second communications link **526** can be the Internet or another computer network. In another embodiment, the second communications link **526** and the first communications link **504** can be the same communications link. For example, in this embodiment, both the first and second communications links **504** and **526** can be the Internet. The account web site **530** can allow users to remotely conduct the following transactions: register new cash cards, obtain balance inquiries, add value to existing cards, review recent transaction history, and/or purchase new cards.

In addition to the foregoing, a user can also utilize the value exchange system **500** to pick up tickets and other items reserved or purchased on-line. In this embodiment, the user first accesses a ticket seller web site **540** to reserve or purchase tickets and receive a ticket reservation number. The user can then visit a conveniently located machine **100** and enter the reservation number and/or a PIN. The machine **100** then communicates with the ticket seller web site **540** via the first communications link **504** to obtain authorization to dispense the tickets. After obtaining the authorization, the machine **100** dispenses the tickets to the user.

While selected aspects of the value exchange system **500** have been described above for purposes of illustration, those of ordinary skill in the relevant art will appreciate that various other functionalities can be combined with this system in accordance with this disclosure to further enhance the utility of the system. For example, other types of informational- or transactional-based web sites can be accessed via the value exchange machine **500** to obtain yet other forms of data and/or accomplish other forms of transaction. For example, the machine **100** can access a novelty card web site **542** to obtain authorization to dispense novelty items or cards, such as baseball cards. Further, a phone card web site **541** can also be included in the system **500** to provide the infrastructure necessary for the user to purchase or recharge prepaid phone cards from the machine **100** as described above.

FIG. **6** is a flow diagram illustrating a routine **600** implemented by the value exchange system **500** of FIG. **5** in one embodiment. In block **602**, a user selects one or more desired transactions at the machine **100** (FIG. **1**). In one aspect of this embodiment, the user may elect to perform multiple transactions with multiple types of input and receive multiple types of output. In block **604**, the machine **100** prompts the user for the method or methods of payment. As discussed in detail above, the user may elect to pay for the transaction with coins, currency, credit card, debit card, checking or savings account transfers, or value prepaid over the Internet. In block **606**, in one embodiment, the machine displays a fee associated with the selected transaction. In block **608**, the user accepts or rejects the fee. If the user accepts the fee, in block **610**, the user is prompted to enter his/her form of payment into the machine **100**. In block **612**, the machine **100** accepts the payment from the user, and in block **614**, the machine **100** verifies the payment method.

In block **616**, the machine **100** communicates with a host computer, e.g., the server computer **502** of FIG. **5**, to initiate the transaction. The server computer **502** authorizes the trans-

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action via the financial institution computer **506** and one or more of a bank, a credit card institution, a debit card institution, or a prepaid phone card-issuing institution, as required. In block **618**, the server computer **502** returns a unique code to the machine **100** that can be utilized to verify or reconcile the transaction.

In block **620**, the machine **100** outputs the results of the transaction to the user. As explained above, the output can include a cash redeemable voucher, a prepaid credit card or cash card, a prepaid phone card, and/or an event or travel ticket. In block **622**, the machine **100** prints a receipt and issues it to the user for his/her records. In the event the user is "topping up" an existing credit card or phone card, or transferring money to or from an account, the user will receive a receipt documenting the money transfer. It will be apparent to those of ordinary skill in the art that any combination of the foregoing transactional outputs is possible in accordance with this disclosure.

FIGS. **7-9** are flow diagrams that together illustrate a routine for conducting a transaction with the machine **100** of FIG. **1** in accordance with an embodiment. Referring first to FIG. **7**, FIG. **7** is a flow diagram illustrating a routine **700** for receiving a transaction selection from a user in one embodiment. In block **702**, the user is prompted to select a transaction type or option. As illustrated in blocks **703**, the user can select from numerous transaction options that include: obtaining a new prepaid card (block **704**), reloading or "topping up" an existing prepaid card (block **706a**), obtaining a redeemable cash voucher (block **708**), obtaining a prepaid phone card (block **710**), obtaining a ticket or other item previously reserved and/or paid for over the Internet (block **712a**), adding minutes to an existing cell phone account (block **714a**), adding time to an existing long distance account (block **715a**), or transferring money to an account (block **716a**). After the user has selected the desired transaction, the machine may prompt the user for additional information. For example, if the user elects to reload a prepaid card (block **706a**), then in block **706b** the user is prompted to swipe the card through the card reader **202** (FIG. **2**). In so doing, the machine **100** reads the card and verifies its validity by communicating with one or more internal or remote databases, as explained above. Similarly, if the user elects to receive a ticket previously ordered over the Internet (block **712a**), then in block **712b** the user is prompted for an associated reservation number. Once the reservation number has been entered, in block **712c** the user is prompted for a PIN. After receiving the PIN, in block **712d** the machine **100** verifies the PIN and the availability of the ticket. If instead the user elects to transfer money from, for example, a first account to a second account (block **716a**), then in block **716b** user is prompted to enter an account number for the first account from which the money will be withdrawn. In addition, in block **716c** the user may be prompted for a PIN associated with the first account. After this information has been entered, in block **716d** the machine **100** prompts the user for an account number for the second account into which the money will be deposited. In block **716e**, the user may be prompted for a PIN associated with second account. After this information has been entered, in block **716f** the machine **100** verifies the respective account numbers and, if applicable, the respective PINs. If the user will be depositing the funds for transfer to the second account instead of withdrawing them from the first account, then the user selects this option and does not enter a first account number.

In block **718**, the user is prompted to select another transaction type if there is more than one transaction the user wishes to perform. If the user does wish to perform a second



transaction, the routine returns to block **702** and the user is prompted to select a second type of transaction. If the user does not wish to perform a second transaction, then in block **720** the user indicates that he/she is done selecting transaction types. In block **722**, the machine determines whether it needs to collect any funds from the user for the selected transaction(s). If the machine determines that the user needs to deposit funds for the transaction, then the routine **700** proceeds to routine **800** shown in FIG. **8**. Otherwise, the routine **700** proceeds to routine **900** shown in FIG. **9**.

FIG. **8** is a flow diagram illustrating the routine **800** for inputting various forms of payment in one embodiment. In block **802**, a user is prompted for a payment method. As illustrated in blocks **803**, the user can select from numerous forms of payment. For example, the user may elect to pay for the transaction with cash (e.g., dollar bills) (block **804a**), coins (e.g., a plurality of randomly oriented coins) (block **806a**), credit (block **808a**), debit (block **810a**), and/or funds from various types of payment accounts (block **812a**). If the user elects to pay with cash as in block **804a**, then in block **804b** the user is prompted to begin inserting bills into the bill acceptor **204** (FIG. **2**). As the user is inserting bills, in block **804c** a running total of the bills inserted and accepted is displayed, for example, on the screen **118** of the machine **100** shown in FIG. **1**. In block **804d**, the user is prompted to indicate when he/she is done inserting bills.

If the user elects to pay for the transaction with coins as in block **806a**, then in block **806b** the user is instructed to deposit the coins, for example, by placing them in the coin tray **106** of the machine **100** shown in FIG. **1** and rotating the tray **106** upwardly to deliver the coins to the coin sorting/counting apparatus **112**. In block **806c**, a running total of the coins that have been deposited and counted is displayed, for example, on the screen **118**. The user is then prompted in block **806d** to indicate when all of the coins have been deposited. If the user elects to pay for the transaction with credit as in block **808a**, then in block **808b** the user is instructed to swipe their credit card through the card reader **202**. In block **808c**, the user may be instructed to enter a number, such as his/her zip code, to verify the account. After swiping the credit card or otherwise entering the account information, in block **808d**, the user is prompted to enter the amount that the user wishes to charge to the credit card account. Once the user has input this information, in block **808e**, the machine **100** contacts the server computer **502** (FIG. **5**) to preauthorize use of the credit card for the amount requested, as explained above.

If the user elects to pay for the selected transaction with a debit card as in block **810a**, then in block **810b** the user is instructed to swipe the debit card through the card reader **202**. The user is then instructed in block **810c** to enter a debit card PIN to verify user authorization. After entering the PIN, in block **810d** the user is prompted to enter the amount to debit the associated account for the selected transaction. After this information has been entered, in block **810e** the machine **100** communicates with the server computer **502** to authorize use of the account for the amount of the debit. If instead the user elects to pay for the selected transaction by transferring money from an account as shown in block **812a**, then in block **812b** the user is prompted to enter the number of the account. In block **812c**, the user may also be prompted to enter a PIN associated with the account.

In decision block **814**, after the user has entered the first form of payment and any other necessary information, the user is prompted as to whether they wish to include an additional form of payment. If the user wishes to use an additional form of payment for the selected transaction, then the routine

**800** returns to block **802**. If the user is finished entering payment, then the routine proceeds to the routine **900** shown in FIG. **9**.

FIG. **9** is a flow diagram illustrating a routine **900** for completing a selected transaction in one embodiment. In block **902**, the machine **100** displays the fees associated with the selected transaction for viewing by the user. In decision block **904**, the user accepts or rejects the fees. If the user rejects the fees, then in block **905** the routine returns any funds received from the user back to the user and the routine is complete. If the user accepts the fees, then in decision block **906** the routine determines if the user elected to receive a redeemable cash voucher. If so, then in block **907** the machine prints the cash voucher and dispenses it to the user. If, instead, the user elected to receive a prepaid card (e.g., for cash, credit, or phone minutes), receive a preordered ticket, transfer money, etc., then in block **908** the machine contacts a host computer (e.g., the server computer **502** of FIG. **5**) to provide account information to authorize the transaction, create an account, or transfer account data. In block **910**, the host computer performs the necessary transactions with, for example, a financial institution or a phone card-issuing institution, and returns the necessary authorization data to the machine **100**.

Once the transaction has been authorized, the machine **100** issues the desired output to the user according to one of the blocks **911**. For example, if the user selected a prepaid cash card or phone card, the machine **100** dispenses the selected type of card to the user via the card outlet **208** shown in FIG. **2**. Similarly, if the user selected a ticket, the machine **100** dispenses it to the user via the ticket outlet **210** shown in FIG. **2**. In decision block **912**, the machine **100** verifies that it has performed all of the transactions requested by the user. If the machine **100** has not completed the requested transactions, then the routine **900** returns to block **902** and repeats. If all the requested transactions have been performed, then in block **914** the machine **100** prints a receipt with a unique transaction number and issues it to the user. In block **916**, if any currency is left over from the selected transaction, the machine **100** dispenses it to the user from the coin return slot **110** shown in FIG. **1**.

It will be appreciated from the foregoing that although specific embodiments of the value exchange system **500** (FIG. **5**) and the value exchange machine **100** (FIG. **1**) are described for purposes of illustration, other embodiments can be implemented without departing from the spirit or scope of this disclosure. For example, in one other embodiment, in addition to providing various services to users via the value exchange machine **100**, the system can also provide various functionalities to a remote user operating a general-purpose computer, such as the user computer **520** (FIG. **5**). In this alternate embodiment, the user can access various on-line web sites to purchase or reserve various products. For example, a user may visit the ticket seller web site **540** to purchase tickets for an event and pay for the tickets with a credit card. In this embodiment, the ticket seller web site **540** then makes the purchase information available to the machine **100** so the user may then visit the machine **100** to receive the actual tickets. In another embodiment, the user can order the tickets on-line at the ticket seller web site **540** and pay for the tickets by depositing funds into the machine **100** at the time of receipt.

In a further embodiment, a user can access a telephone carrier web site **541** from the user computer **520** (FIG. **5**), and pre-purchase a long distance calling card or a wireless phone card on-line. The user can pay for the card on-line (with, e.g., a credit card account) and then receive a unique code or PIN



once payment is authorized. In one aspect of this embodiment, the user may then visit the machine **100** and enter his/her code to receive the card. In a similar embodiment, the user can reserve the card on-line, but not pay for the card until visiting the machine **100**.

In yet another embodiment, long distance minutes may be stored on a particular long distance calling card, much like a "stored value card." In this embodiment, a user can access the telephone carrier web site **541** and pre-purchase additional minutes to put on the card. The user can pay for the additional minutes on line (with, e.g., a credit card account) and then receive a unique code or PIN once payment is confirmed. In one aspect of this embodiment, the user may then visit the machine **100** and enter his/her long distance account number (by, e.g., swiping his/her card) and/or the PIN. The carrier web site **541** can then communicate with the machine **100** and send the corresponding "top up" data to the machine **100**. The machine **100** can then add the additional prepaid phone minutes to the user's phone card. In yet another embodiment, communication between the various web sites and the value exchange machines is facilitated by a "host" computer that first receives a communication from the web site and then sends the communication to the respective value exchange machine. These and other changes may be made to the invention in light of the above detailed description.

In still further embodiments, the methods and systems described herein can be used to obtain various types of information. Such information can include, for example, account balance information (e.g., for credit card accounts, checking and savings accounts, cell phone minutes, brokerage accounts, on-line accounts, and the like). Such information can also include salary or other employment information. For example, if a particular employer distributes employee pay in the form of prepaid cash cards, then the employees can utilize the machines **100** to obtain account balance information. Additionally, the employees could utilize the machine **100** in one or more ways as described above to transfer portions of their wages to other accounts for, e.g., bill payment or a person-to-person money transfer. In yet another embodiment, the employees could use the machine **100** to convert a portion of their cash card to a redeemable cash voucher that can be redeemed for cash or used to purchase goods and/or services at a POS.

The above detailed descriptions of embodiments of the invention are not intended to be exhaustive or to limit the invention to the precise form disclosed above. While specific embodiments of, and examples for, the invention are described above for illustrative purposes, various equivalent modifications are possible within the scope of the invention, as those skilled in the relevant art will recognize. For example, while steps are presented in a given order, alternative embodiments may perform routines having steps in a different order. The teachings of the invention provided herein can be applied to other systems, not necessarily the value exchange system described herein. These and other changes can be made to the invention in light of the above detailed description.

Unless the context clearly requires otherwise, throughout the above description and the following claims, the words "comprise," "comprising," and the like are to be construed in an inclusive sense as opposed to an exclusive or exhaustive sense; that is to say, in the sense of "including, but not limited to." Words using the singular or plural number also include the plural or singular number respectively. Additionally, the words "herein," "above," "below" and words of similar import, when used in this application, shall refer to this application as a whole and not to any particular portions of this

application. When the claims use the word "or" in reference to a list of two or more items, that word covers all of the following interpretations of the word: any of the items in the list, all of the items in the list, and any combination of the items in the list. All of the above U.S. patents and applications and other references described above are incorporated herein by reference.

These and other changes can be made to the invention in light of the above detailed description. In general, the terms used in the following claims should not be construed to limit the invention to the specific embodiments disclosed in the specification, unless the above detailed description explicitly defines such terms. Accordingly, the actual scope of the invention encompasses the disclosed embodiments and all equivalent ways of practicing or implementing the invention under the claims.

While certain aspects of the invention are presented below in certain claim forms, the inventors contemplate the various aspects of the invention in any number of claim forms. For example, if only one aspect of the invention is recited below as embodied in a computer-readable medium, the inventors contemplate that other aspects may likewise be embodied in a computer-readable medium. Accordingly, the inventors reserve the right to add additional claims after filing the application to pursue such additional claim forms for other aspects of the invention. The invention is not limited, except as by the following claims.

We claim:

1. A computer-implemented method for distributing prepaid cards, the method comprising:
  - providing a consumer-operated kiosk having a display screen, a coin counting apparatus, a communications facility, a first card reader configured to read information off cards provided by users, and a second card reader configured to read information off new prepaid cards dispensed from within the kiosk;
  - displaying a plurality of transaction options via the display screen, wherein a first transaction option corresponds to receiving a new prepaid card from the kiosk, a second transaction option corresponds to reloading an existing, user-owned prepaid card with the kiosk, and a third transaction option corresponds to transferring funds to an on-line account for making on-line purchases, wherein each of the transaction options is available to users in exchange for coins, credit, or both coins and credit;
  - receiving a user selection corresponding to at least the first transaction option;
  - reading information off a first card submitted to the first card reader by the user;
  - sending at least a portion of the information read off the first card to a first remote computer via the communications facility to receive authorization to charge a dollar amount to an account associated with the first card to at least partially pay for a second card, wherein the second card is a new prepaid card held within the kiosk;
  - receiving authorization from the first remote computer to charge the account associated with the first card submitted by the user;
  - in response to receiving the authorization from the first remote computer, retrieving the second card from within the kiosk and automatically reading an identification number from the second card with the second card reader;
  - transmitting the identification number to a second remote computer via the communications facility, whereby the



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identification number is associated with a first portion of the dollar amount in a remote database;  
 after reading the identification number from the second card, dispensing the second card to the user from the kiosk; and  
 transferring a second portion of the dollar amount to an on-line account for making on-line purchases.

2. The method of claim 1 wherein communicating with a first remote computer to receive authorization includes receiving a first portion of payment for the second card, and wherein the method further comprises receiving a second portion of payment from the user for the second card, the second portion of payment including a plurality of coins.

3. The method of claim 1 wherein communicating with a first remote computer to receive authorization includes receiving a first portion of payment for the second card, and wherein the method further comprises receiving a second portion of payment from the user for the second card, the second portion of payment including a plurality of non-sequentially received randomly oriented coins of at least two different denominations.

4. The method of claim 1 wherein communicating with a first remote computer to receive authorization includes receiving a first portion of payment for the second card, and wherein the method further comprises receiving a second portion of payment from the user for the second card, the second portion of payment including one or more pieces of paper currency.

5. The method of claim 1, further comprising receiving an input from the user defining a value for the second card.

6. The method of claim 1, further comprising:  
 receiving a first input from the user defining the dollar amount charged to the account of the user for at least partial payment for the second card; and  
 receiving a second input from the user, the second input being related to at least one of identification of the account and access to the account of the user.

7. The method of claim 1 wherein reading information from the first card submitted by the user includes reading information from at least one of a wallet-sized credit card, debit card, phone card, and smart card.

8. A consumer-operated kiosk system comprising:  
 means for displaying a plurality of transaction options to a user, wherein a first transaction option corresponds to receiving a new prepaid card from the kiosk, a second transaction option corresponds to reloading an existing, user-owned prepaid card with the kiosk, and a third transaction option corresponds to transferring funds to an on-line account for making on-line purchases;  
 means for receiving at least one of coins, cash, credit or debit from the user in exchange for at least one of the transaction options;  
 means for receiving a user selection corresponding to at least the first transaction option;

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means for reading information off a first card submitted by the user and sending at least a portion of the information to a first remote computer;  
 means for receiving authorization from the first remote computer to charge a dollar amount to an account associated with the first card;  
 means for retrieving a second card from within the kiosk and dispensing the second card to the user, wherein the second card is a new prepaid card associated with a first portion of the dollar amount; and  
 means for transferring a second portion of the dollar amount to an on-line account for making on-line purchases.

9. The consumer-operated kiosk system of claim 8 wherein the means for transferring include means for transferring the second portion of the dollar amount to an e-wallet for making on-line purchases.

10. The consumer-operated kiosk system of claim 8, further comprising means for receiving user input defining at least one of the first and second portions of the dollar amount.

11. The consumer-operated kiosk system of claim 8, further comprising means for dispensing a unique code to the user, wherein the unique code enables the user to make on-line purchases with the on-line account.

12. A consumer-operated kiosk comprising:  
 a display screen configured to display a plurality of transaction options, including a first transaction option corresponding to receiving a new prepaid card from the kiosk, a second transaction option corresponding to reloading an existing, user-owned prepaid card with the kiosk, and a third transaction option corresponding to transferring funds to an on-line account for making on-line purchases;  
 a card reader configured to read information off a first card submitted by a user;  
 a communications facility configured to send at least a portion of the information read off the first card to a first remote computer for authorization to charge a dollar amount to an account associated with the first card, wherein the communications facility is further configured to:  
 facilitate transfer of a first portion of the dollar amount to an account associated with a second card held within the kiosk; and  
 facilitate transfer of a second portion of the dollar amount to an on-line account for making on-line purchases; and  
 a card dispenser configured to dispense the second card to the user from within the kiosk.

13. The consumer-operated kiosk of claim 12, further comprising a coin counting apparatus configured to count a plurality of coins received from the user to determine a value, wherein all or a portion of the coin value can be applied to one or more of the first, second, or third transaction options.

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